

DEPARTMENT OF ENVIRONMENTAL PROTECTION FY2011

CONTRIBUTION TO MONTGOMERY RESULTS

A Responsive and Accountable County Government
 An Effective and Efficient Transportation Network
 Healthy and Sustainable Communities
 A Strong and Vibrant Economy
 Vital Living for all of Our Residents

ENVIRONMENTAL PROTECTION AT-A-GLANCE

What DEP Does and for Whom	How Much
Overall The mission of the Department of Environmental Protection is to: Protect and enhance the quality of life in our community through the conservation, preservation, and restoration of our environment guided by the principles of science, resource management, sustainability and stewardship; and to provide solid waste management services including recycling in an environmentally progressive and economically sound manner.	FY12 Budget: \$124,503,930 <u>Workyears</u> : 187.1 <u>Solid Waste Fund</u> : \$106,890,010 <u>WQPC</u> : \$15,944,160 <u>General Fund</u> : \$1,669,760
Watershed Management <ul style="list-style-type: none"> • Monitor Water Quality • Inspect and Maintain Stormwater Facilities • Watershed Restoration in compliance with MS-4 Permit Requirements • Planning, Outreach and Education of MS-4 Permit Requirements 	FY12 Budget: \$15,944,160 (12.8 % of budget) Workyears: 72.1
Policy and Compliance <ul style="list-style-type: none"> ▪ Enforce environmental regulations ▪ Analyze, develop and recommend environmental policies related to: <ul style="list-style-type: none"> - Environmental Sustainability - Air Quality - Energy Conservation - Noise - Forest Conservation - Illicit Discharge Detection and Elimination 	FY12 Budget: \$879,870 (0.7 % of budget) Workyears: 8.9 Note: Additional 4.3 WYs related to enforcement activities are charged to the Water Quality Protection and Solid Waste Funds

<p>Water and Wastewater Management</p> <ul style="list-style-type: none"> Analyze, develop, recommend, and implement water supply and wastewater disposal service policies, in coordination with land use planning and utility services, through the County's comprehensive plan Analyze, develop, and recommend regional, and local wastewater and water supply policies Develop groundwater monitoring reports for facilities as required by the State and community agreements (closed landfills and brownfield sites) 	<p>FY12 Budget: \$789,870 (0.6% of budget) Workyears: 3.2 Note: Additional 0.7 WYs related to monitoring is charged to the Solid Waste Fund</p>
<p>Solid Waste Services</p> <p>Collect, process, and manage refuse generated in Montgomery County</p> <ul style="list-style-type: none"> Monitor and enforce contracts with private collectors for residential refuse collection in sub district A – 91,081 homes. Process and dispose of refuse from 211,545 homes, 111,283 multi-family households, and over 65% of 35,000 businesses. Transfer Station facility receives, processes, and ships municipal solid waste generated within the County. <p>Oversee residential and commercial recycling</p> <ul style="list-style-type: none"> Monitor and enforce countywide contracts with private collectors for residential recycling collection for 211,545 homes. Facilitate and enforce recycling to 35,000 businesses and 111,283 multifamily residents Administer and oversee compliance with the County's recycling regulation, and promote and maximize waste reduction. 	<p>FY12 Budget: \$76,255,250 (71% of budget) Workyears: 41.00</p> <p>FY12 Budget: \$30,634,760 (29% of budget) Workyears: 61.90</p>

PERFORMANCE

HEADLINE PERFORMANCE MEASURE#1: AMOUNT OF POLLUTANT REMOVED THROUGH THE WATERSHED PROGRAM: NITROGEN, PHOSPHORUS, SEDIMENT, BACTERIA.

	FY11	FY12	FY13	FY14	FY15
NITROGEN (LBS/YEAR)	9,490	10,838	14,709	37,524	60,339
PHOSPHORUS (LBS/YEAR)	1,006	1,242	1,800	5,110	8,419
SEDIMENT (TONS/YEAR)	123	209	296	701	1,106
BACTERIA (MPN/YEAR)	22,086	22,086	42,734	142,946	243,158

Objective: A requirement of the County's NPDES MS4 Stormwater Permit is to reduce these pollutant loadings to the point at which the County's waterbodies fully meet water quality standards.

CONTRIBUTING FACTORS

- As new Total Maximum Daily Load (TMDL) studies are approved by the Environmental Protection Agency (EPA), the County will be assigned new pollutant load reduction targets (known as wasteload allocations).
- As models and methodology are refined, baseline loads were revised which affected the total pollutant reduction targets (sometimes increasing the amount of pollutant to be reduced by the County).
- Dry years reduce storm flows and may result in a temporary reduction in pollutant loads flowing into the County's waterbodies.
- The DEP completed the Countywide Coordinated *Implementation Strategy* and submitted this to Maryland Department of the Environment (MDE) in February 2011. The *Implementation Strategy* provides the framework of Best Management Practices (BMP) types, acres for restoration, cost estimate, and timelines to meet the MS4 permit impervious restoration goal and to make progress for load reductions for assigned wasteload allocations.

- New development and redevelopment codes/regulations require more stringent stormwater management and preferential onsite stormwater management known as environmental site design (ESD). This new approach will better mimic natural runoff and infiltration processes as well as improve runoff quality and reduce pollutant loads.
- The Stormwater Management Facility Inspection and Maintenance Program funded by the Water Quality Protection Charge (WQPC), uses the County's technical resources and qualified personnel to ensure that regular maintenance of stormwater management best management practices (BMPs) on both public and private land is performed. In FY11, over 2,300 structures (both privately and publicly-owned stormwater management facilities) were inspected to ensure that they were properly functioning. This program is critical to meeting National Pollutant Discharge Elimination System (NPDES) Municipal Separate Stormwater Systems (MS4) permit goals by ensuring that stormwater management BMPs throughout the county are operating as designed, to reduce stormwater flow volumes and pollutants loads.
- Stream restoration projects (stream bank/channel stabilization and riparian buffers) which are working as intended will also reduce pollutant loadings and meet MS4 restoration goals.
- Stormwater structures which were structurally retrofitted (through construction or upgrades) will control polluted runoff from already developed urban land.
- Newly- hired watershed restoration positions will improve implementation effectiveness and rate at which MS4 permit timelines can be met.
- The RainScapes Rewards program which cost-shares installations that control runoff from privately-held land continued to expand during FY11. RainScapes for Schools completed projects at five schools and at the Smith Center. Training workshops were held for residents at Brookside Nature Center (rain gardens, rain barrels, and conservation landscaping) and for landscape professionals at the Smith Center. Montgomery College added a new course on vegetated stormwater management which included RainScapes and DEP stormwater maintenance instruction. The RainScapes Gazette, electronic newsletter, established over 2,000 subscribers while the Landscape Professionals Gazette had increased to 223 subscribers. Over 300 RainScapes Rewards projects were installed in all eight major County watersheds; tree plantings and rain barrels were the most popular measures but 22 rain gardens and 21 conservation landscapes were also installed.

RESTRICTING FACTORS

- As additional imperviousness is added whether through new development or re-development of existing built areas, care must be taken to minimize the disruption of natural hydrology and negative water quality impacts.

- Given the historically urban nature of some of Montgomery County's watersheds and the associated nonpoint source pollution from stormwater, human population, construction, and urban land-based activities, it is realistic to assume that meeting water quality standards will be a challenging and resource-intensive process.
- Wet years increase stormflow runoff and may result in a temporary increase in pollutant loads.
- Limited data are currently available to verify pollutant load reduction estimates and models are not always accurate.
- New requirements for additional pollutants with regulatory limits are likely to be added by the state (e.g., trash).
- The Chesapeake Bay TMDL (led by the federal government) will impact all watersheds in the Chesapeake Bay and will potentially allocate load reductions beyond existing approved TMDL load reduction-allocations for County waterbodies.

WHAT WE PROPOSE TO DO TO IMPROVE PERFORMANCE

- This measure is now reported as *Amount of Pollutant Reduced Through the Watershed Restoration Program* which reflects the amount of reductions achieved through the efforts and programs of DEP's Watershed Management Division.
- DEP is implementing the National Pollutant Discharge Elimination System (NPDES) Permit (3rd permit) which includes meeting specific pollutant load reduction targets laid out in approved TMDL studies on its impaired waterbodies.
- DEP has completed Step 1 of the requirements of the MS4 permit implementation outlined below. DEP is now in Steps 2 through 5 shown below to meet MS4 permit requirements.

Step 1: Develop Plan within one year of permit issuance

- a) Identify projects, programs, monitoring and funding needed
- b) Develop schedule for monitoring, tracking, and implementation to meet restoration and pollutant reduction goals

Step 2: Implement plan over five-year permit term

Step 3: Collect data and track results of watershed restoration techniques

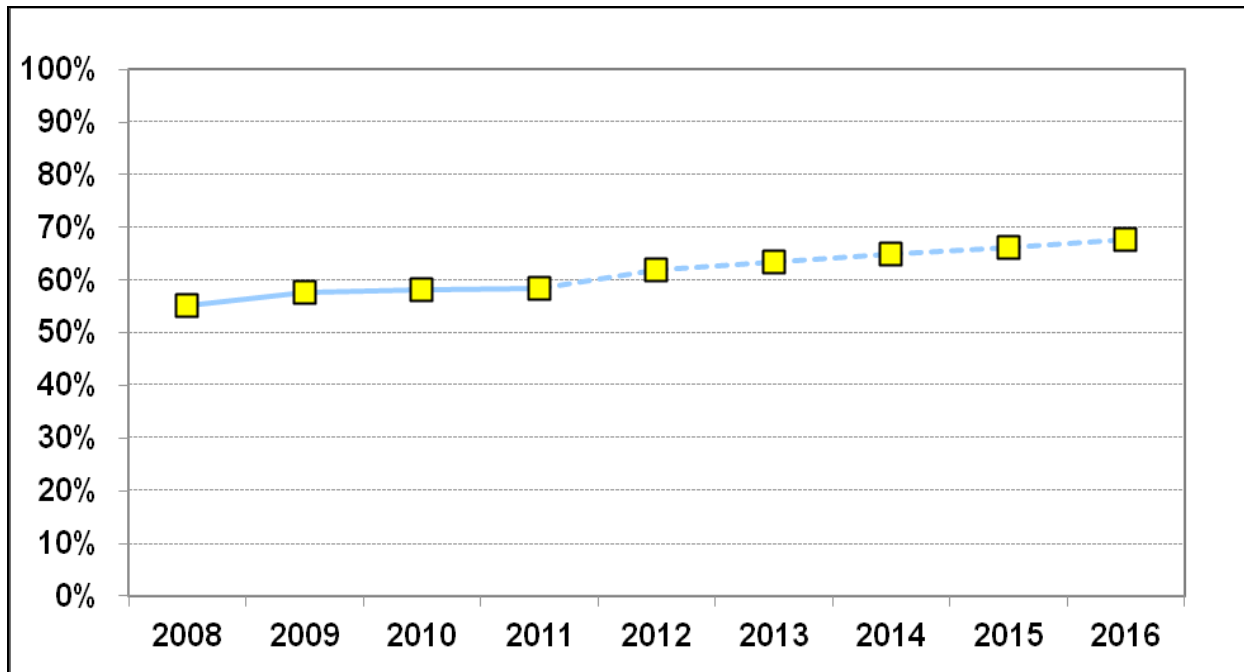
Step 4: Evaluate and modify plan according to scheduled intervals using data collected

Step 5: Report annually on implementation progress and stream resource improvements

- DEP has been, and will continue to use the following watershed restoration techniques to meet permit goals including pollutant load reductions:
 - Non-structural techniques and on-site infiltration techniques (green roofs, downspout disconnection, rain gardens, bioswales, and other ESD techniques)

- Structural retrofitting (upgrading existing stormwater management structures and installing new such structures), and
- Stream restoration (stream bank and channel stabilization)
- DEP is currently re-evaluating the processes, practices, and applicable regulations/laws of the Water Quality Protection Charge. This is in order to address issues of equity, applicability, revenue, and optimal alignment of the Charge's functions to meet MS4 permit requirements.
- DEP will increase the number of BMPs inspected and maintained in the Stormwater Management Facility Inspection and Maintenance Program to keep up with growth while reducing the number of facilities waiting to be accepted into the maintenance program.
- DEP will increase enforcement of BMP maintenance in impaired watersheds as identified in the *Implementation Plan*.

HEADLINE PERFORMANCE MEASURE#2: INDEX OF BIOLOGICAL INTEGRITY (IBI*) SCORE IN COUNTY WATERSHEDS

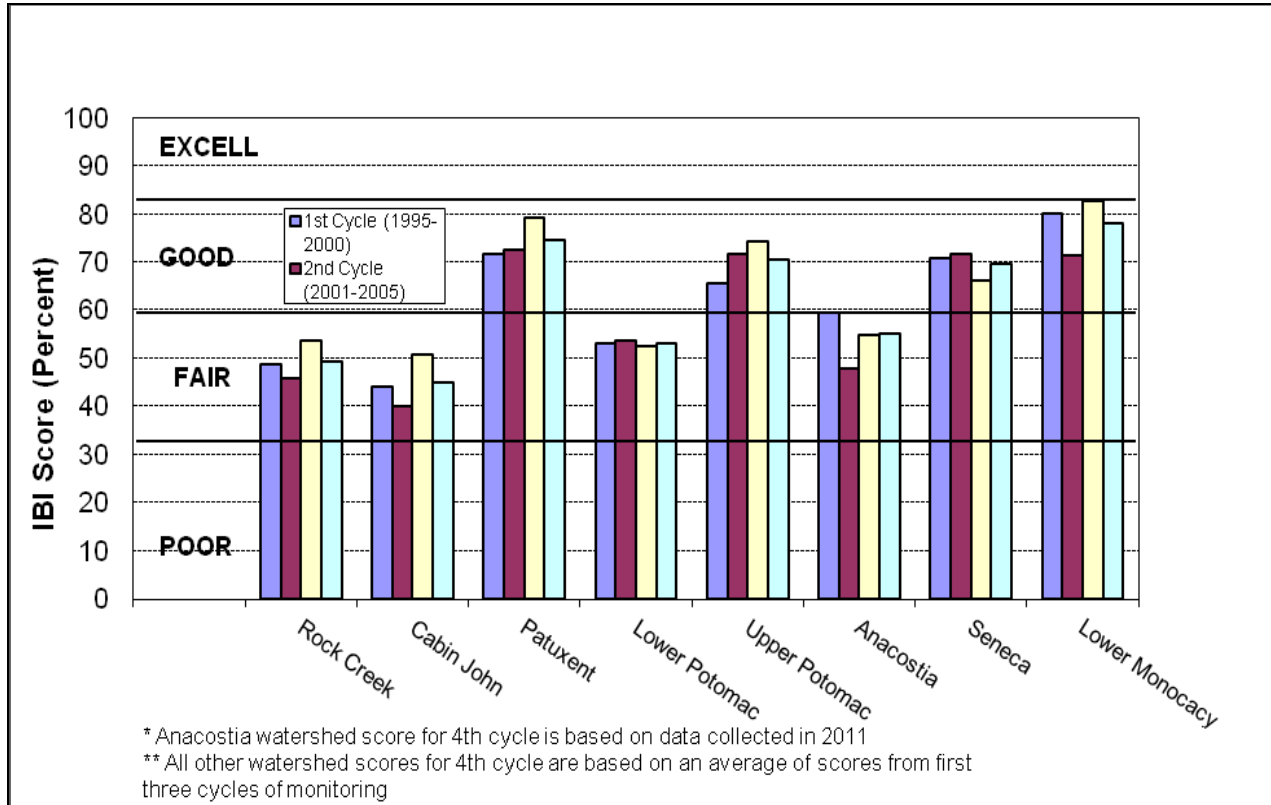


IBI Score - The Index of Biological Integrity is a combined score of the health of the fish and the macro-invertebrate biological communities.

2008	2009	2010	2011	2012	2013	2014	2015	2016
55%	58%	58%	59%	62%	63%	65%	66%	68%

Headline Measure Detail:

Watershed Groups Correspond to the NPDES MS4 Implementation Strategy Watershed Groups



CONTRIBUTING FACTORS

- Same as for Headline Performance Measure 1 above
- In the Clarksburg SPA, DEP identified wetlands, springs, and headwaters earlier in the development process which led to the greater protection of sensitive water resources. This was done in addition to the annually required stream biological monitoring and focused on areas with sensitive environmental resources which are facing development pressures.

RESTRICTING FACTORS

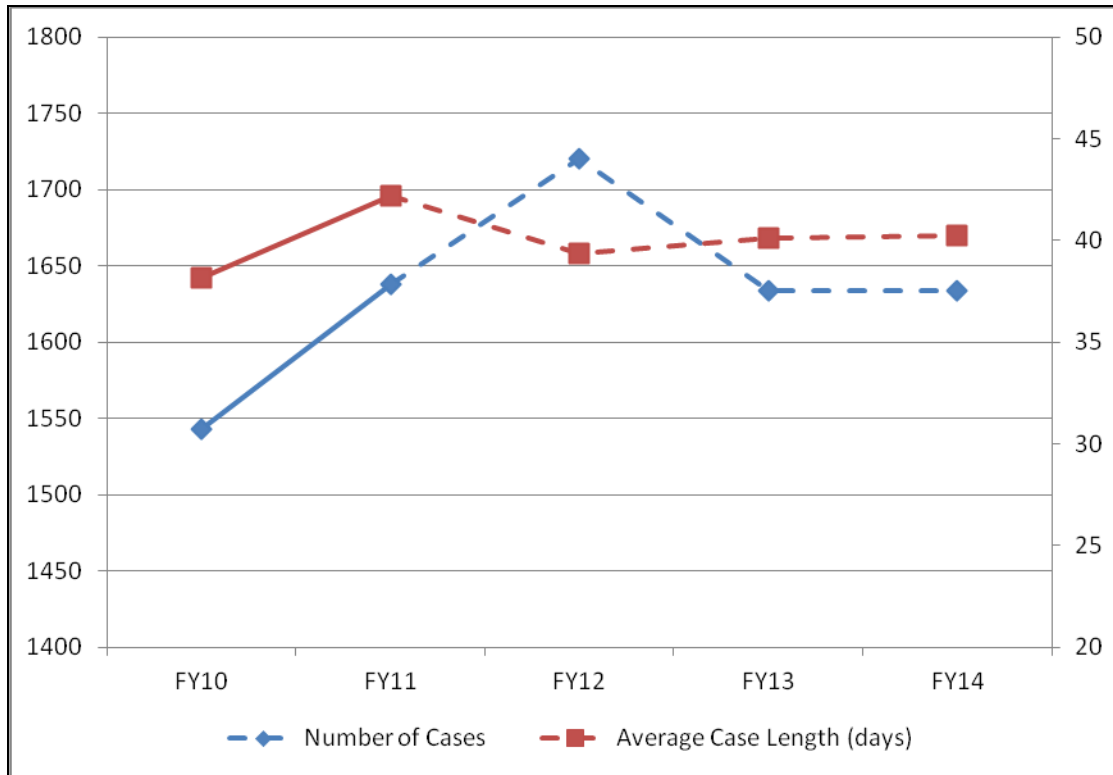
- Same as for Headline Performance Measure 1 above
- Drought, severe weather and other natural events are beyond the County's control but can adversely affect the biological sampling results (IBI scores) as the scores from the period 2001-2005 indicate.

- Individual subwatersheds could have an IBI rating of poor (especially in southern County areas) even if a larger grouping shows an IBI rating of good or fair.

WHAT WE PROPOSE TO DO TO IMPROVE PERFORMANCE

- Same as for Headline Performance Measure 1 above
- Greater involvement of citizen monitors and other volunteer efforts.

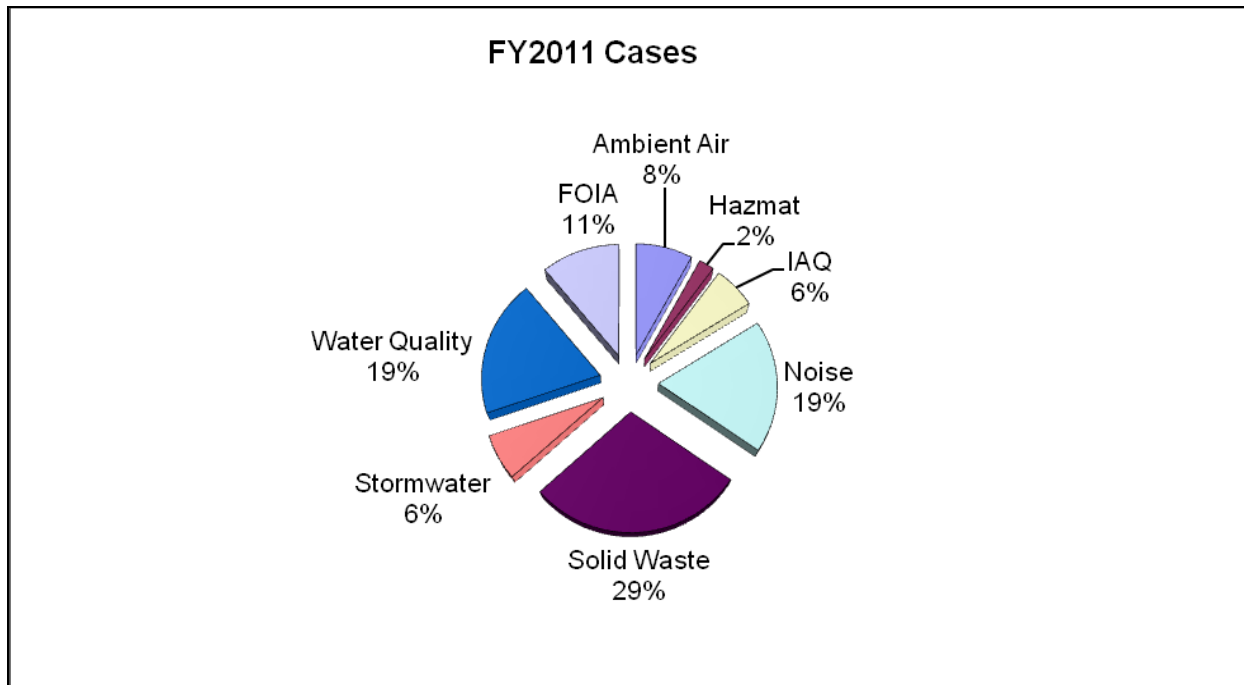
HEADLINE PERFORMANCE MEASURE#3: AVERAGE NUMBER OF DAYS TO RESOLVE INCOMING COMPLAINTS



	FY2010		FY2011		FY2012	
Case Type	Cases	Average Case Length (days)	Cases	Average Case Length (days)	Cases	Average Case Length (days)
Ambient Air	156	50	131	60	138	55
Hazmat	26	34	35	31	37	33
IAQ	127	51	98	54	103	53
Noise	287	58	303	76	318	67
Solid Waste	419	31	471	37	495	34
Stormwater	125	44	104	67	109	56
Water Quality	222	19	315	14	331	17
FOIA	181	24	181	17	190	21
Total	1543	38	1638	42	1720	39

~continued below

<i>Case Type</i>	<i>FY2013</i>		<i>FY2014</i>	
	<i>Cases</i>	<i>Average Case Length (days)</i>	<i>Cases</i>	<i>Average Case Length (days)</i>
Ambient Air	142	55	142	55
Hazmat	33	33	33	33
IAQ	109	53	109	53
Noise	303	67	303	67
Solid Waste	461	34	461	34
Stormwater	113	56	113	56
Water Quality	289	17	289	17
FOIA	184	21	184	21
Total	1634	40	1634	40



Additional Information: Breakdown of Code Enforcement Cases in FY2011

CONTRIBUTING FACTORS

- Full complement of experienced Code Enforcement staff addressing complaints.
- Good procedures in place to track calls, e-mails and other communications regarding code enforcement cases.
- Continuing refinement of 311 Knowledge Base Articles.
- Indoor air cases decreased due to properly defined areas of responsibility between DEP and DHCA.
- Continued availability of field staff assigned take-home vehicles.
- Increased efforts at storm water compliance in support of the MS4 permit.

RESTRICTING FACTORS

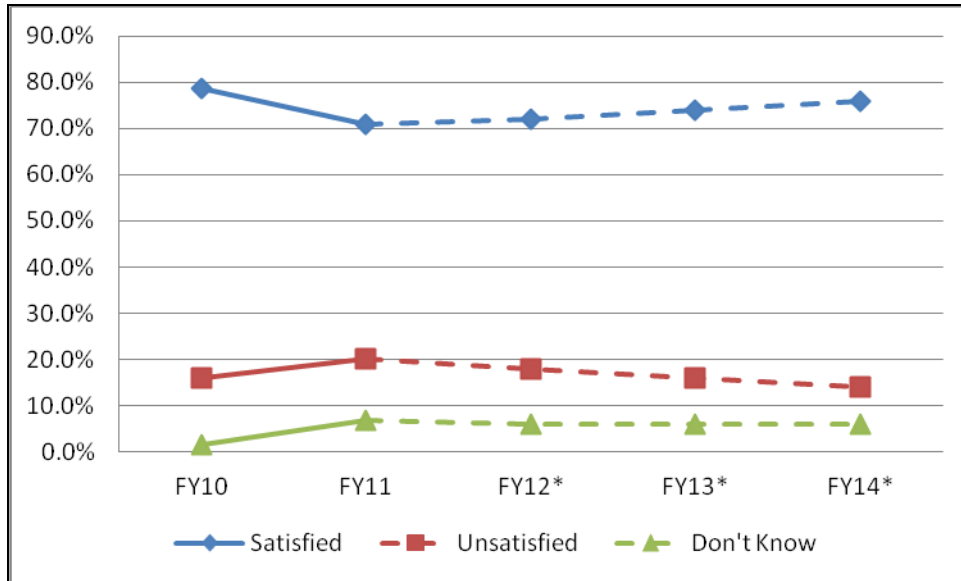
- Complexity of certain ongoing issues keeps cases open.
- Limited public awareness of County environmental regulations results in violations.

- Number of cases (e.g., those related to noise) continue to increase as a result of densification and smart growth where residential and commercial uses of space are adjoining in limited space.

WHAT WE PROPOSE TO DO TO IMPROVE PERFORMANCE

- Continue to emphasize good customer service, public outreach and education, including constant and open communication with parties involved in enforcement cases. In many cases, constant communication and education with affected parties regarding the status of a case will lead to satisfied customers even if the resolution was unfavorable to them.
- Continue to train staff on relevant environmental and customer service issues.
- To the extent feasible, enhance the database used to track enforcement activities to allow for better analysis of performance and identification of opportunities for improvement.
- Address deficiencies in laws and regulations that create enforcement issues (e.g. develop regulations for certain noise related activities as provided for in County Code.)
- Continue to coordinate with the County's 311 Portal and with the call taker team, to explain environmental codes and provide directions for reducing infractions of the County's environmental code.

HEADLINE PERFORMANCE MEASURE#4: PERCENT SATISFIED WITH DEP RESPONSE TO ENVIRONMENTAL COMPLAINTS



Customer Satisfaction Surveys

	FY10	FY11#	FY12*	FY13*	FY14*
Total Sent	495	289	400	450	500
Total Returned	118	89	120	135	150
Response Rate	24%	31%	30%	30%	30%
Satisfied	78.8%	70.8%	72.0%	74.0%	76.0%
Unsatisfied	16.1%	20.2%	18.0%	16.0%	14.0%
Don't Know	1.7%	6.7%	6.0%	6.0%	6.0%
No Response Chosen	3.4%	2.2%	4.0%	4.0%	4.0%

FY11 Surveys included 245 by mail and 44 by email.

(* Projections)

CONTRIBUTING FACTORS

- Staff experience and customer- response skills enable satisfactory and timely responses to complaints.

- Good communication and dispute-resolution skills even when the outcome is unfavorable to complainant.
- Good procedures in place to track calls, e-mails and other communications regarding code enforcement issues.
- Deployed a new email customer satisfaction survey which includes a reflection of the initial contact and call handling by the MC311 Call Center, in addition to the service received by staff of the DEP.

RESTRICTING FACTORS

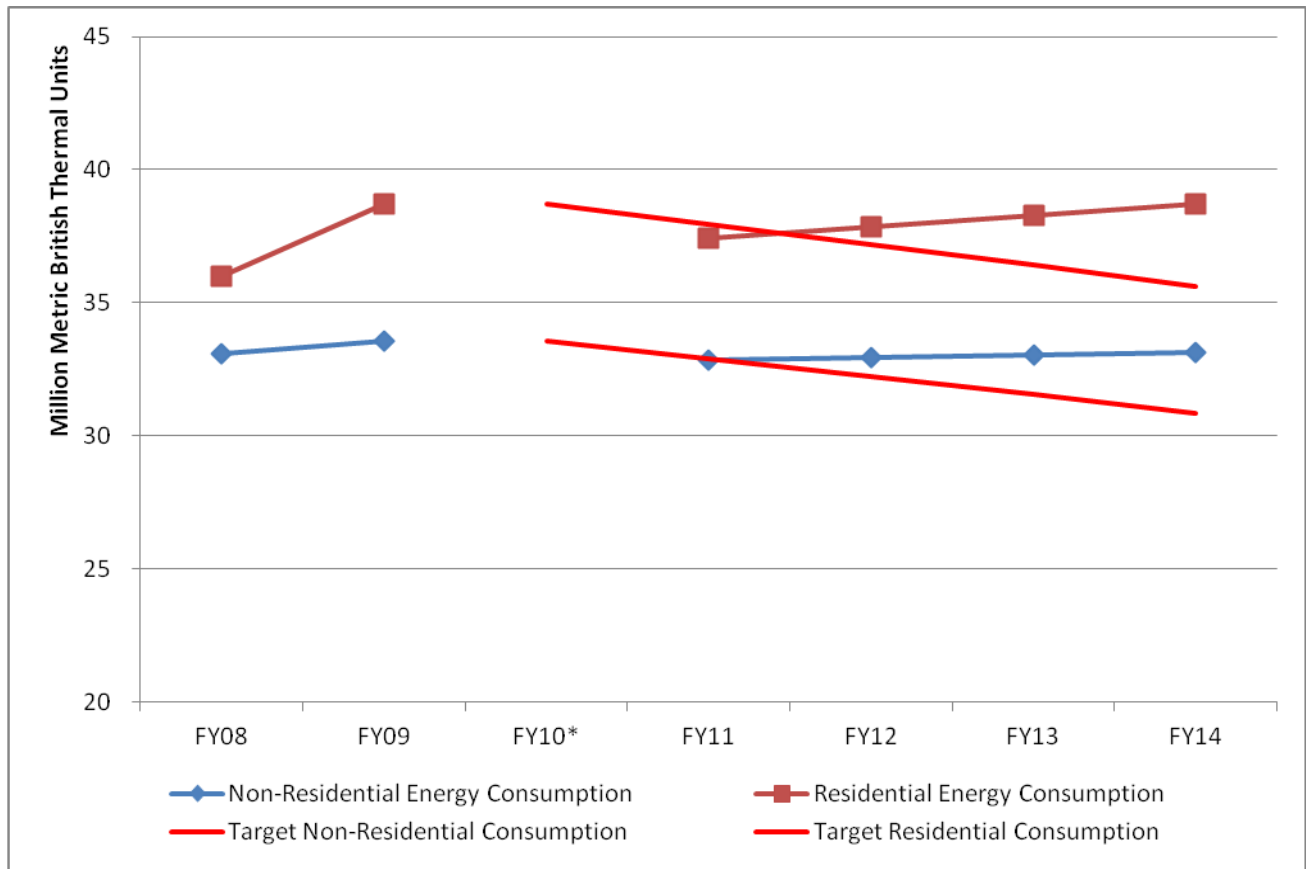
- County Code may prevent DEP from acting in a way that satisfies the complainant's wishes and the complexity of certain issues may not be understood by complainant.
- The response provided by a customer may reflect the respondent's satisfaction with the resolution of a case rather than the manner in which DEP staff performed. Also, customers sometimes rate satisfaction based on their most recent interaction with a County agency, which may not have been DEP.
- Number of cases (e.g., those related to noise) may increase as a result of densification and smart growth, with results in the mixing of residential and commercial uses in limited space.
- Continued inexperience of 311 call takers who are not familiar with DEP issues. While this may affect overall customer satisfaction, we are not sure of the extent to which the initial contact and handling of the call plays a role.

WHAT WE PROPOSE TO DO TO IMPROVE PERFORMANCE

- Continue to emphasize good customer service, public outreach and education, and constant and open communication with parties involved in enforcement cases. In many cases, constant communication and education with affected parties regarding the status of a case will lead to satisfied customers even if the resolution was unfavorable to them.
- Continue to train staff on relevant environmental and customer service issues.
- To the extent feasible, enhance the database used to track enforcement activities to allow for better analysis of performance and identification of opportunities for improvement

- Address deficiencies in laws and regulations that create enforcement issues (e.g. develop regulations for certain noise related activities as provided for in County Code.)

HEADLINE PERFORMANCE MEASURE#5: RESIDENTIAL/NON-RESIDENTIAL ENERGY USE AS A MEASURE OF GREENHOUSE GAS REDUCTIONS



	FY11 Projection	FY11
Residential	39,627,332	37,428,299

	FY11 Projection	FY11
Non-Residential	34,475,475	32,834,703

	FY08	FY09	FY10*	FY11	FY12 (est)	FY13 (est)	FY14 (est)
Non-Residential Energy Consumption	33,101,269	33,553,255	n/a	32,834,703	32,928,401	33,022,098	33,115,795
Difference from Previous Year	547,657	451,987	n/a	(718,552)	93,697	93,697	93,697
Target Consumption			33,553,255	32,882,190	32,211,125	31,540,060	30,868,995
Difference Projected Difference from Goal			n/a	(47,487)	717,275	1,482,038	2,246,800

	FY08	FY09	FY10*	FY11	FY12 (est)	FY13 (est)	FY14 (est)
Residential Energy Consumption	35,979,624	38,733,162	n/a	37,428,299	37,849,418	38,270,537	38,691,656
Difference from Previous Year	(185,317)	2,753,537	n/a	(1,304,863)	421,119	421,119	421,119
Target Consumption			38,733,162	37,958,498	37,183,835	36,409,172	35,634,509
Difference Projected Difference from Goal			n/a	(530,200)	665,583	1,861,365	3,057,147

Figures in million metric British Thermal Units are calculated based on energy tax receipts. FY2010 figures are not provided because accurate data is unavailable due to mid-year tax rate changes.

CONTRIBUTING FACTORS

- Our understanding of the reasons for changes in energy use in the County is limited, but generally prices and costs are a strong influence.
 - a) Cooler summers, warmer winters result in less energy use, while hotter summers and cooler winters result in more energy use. Residential energy consumption responds relatively quickly to these changes, while commercial is not as elastic in response.
 - b) Like most commodities, when prices are higher, less energy is used. However, in many cases energy is a necessity and not a luxury, so responses to prices are longer term decisions (e.g. buying a fuel efficient car or implementing energy efficiency improvements in a building).
- Increased awareness of importance of energy conservation and sustainability.
- Availability of incentives for energy conservation and renewable energy.

- Under current economic conditions, some see reducing energy costs as a prudent investment within their control.

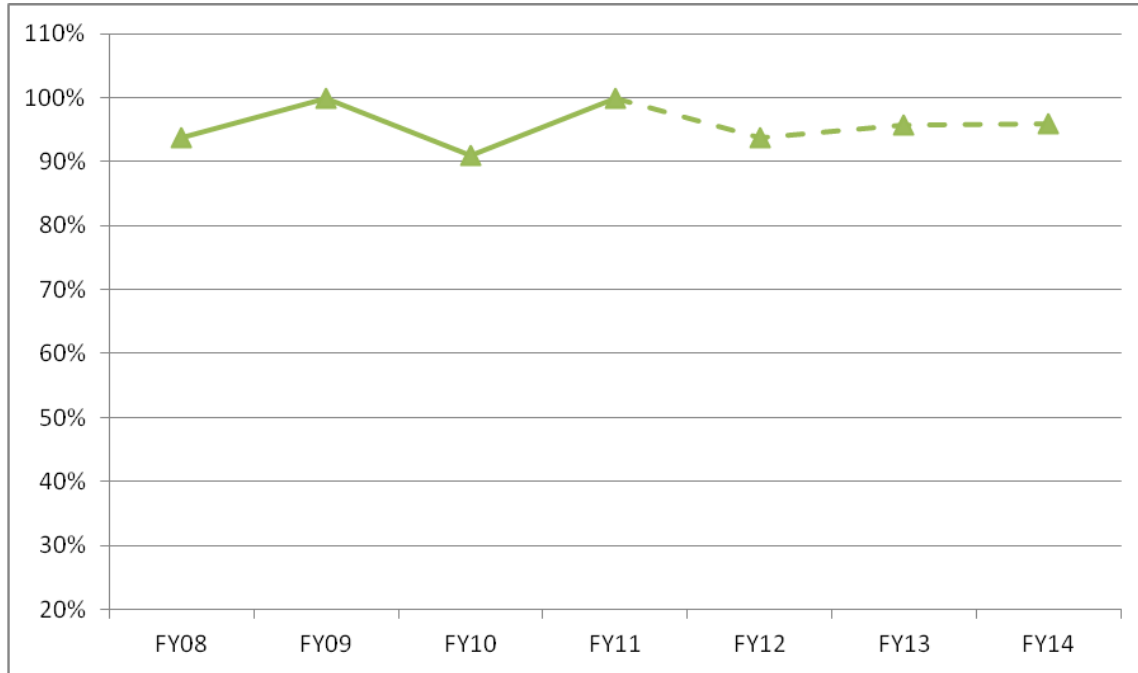
RESTRICTING FACTORS

- Increase in population and employment in the County.
- Volume of older, inefficient building stock.
- Under current economic conditions, some are unable to make the required initial investment to improve energy efficiency.

WHAT WE PROPOSE TO DO TO IMPROVE PERFORMANCE

- Continue to support outreach/education and incentive programs offered by the County, state and federal governments, utilities, and others to reduce energy consumption
- Continue to seek grant funding for energy efficiency programs
- Continue to work on implementation of energy efficiency education through peer networks and partner organizations in the community such as Bethesda Green, Silver Spring Green, and others.

HEADLINE MEASURE #6: PERCENT CONCURRENCE OF COUNTY COUNCIL WATER AND SEWER SERVICE ACTIONS WITH DEP RECOMMENDATIONS



DEP prepares recommendations for the County Council on proposed changes to service area designations in coordination with County policies in the Water and Sewer Plan and Area Master Plans that affect a property's eligibility for public water and sewer service versus private wells and septic systems.

Percent concurrence = Requests received with DEP "actions" and recommendations completed ÷ Requests with completed actions where Council agrees with DEP's recommended action.

	RECOMMENDATIONS		
	REQUESTS RECEIVED WITH ACTIONS COMPLETED	REQUESTS WITH FINAL DECISIONS IN AGREEMENT WITH DEP	% ACCEPTED
FY08	32	30	94%
FY09	17	17	100%
FY10	11	10	91%
FY11	12	12	100%

FY12	16	15	94%
FY13	23	22	96%
FY14	25	24	96%

CONTRIBUTING FACTORS

- Sound understanding of the policies for County water and sewer service planning, and the rationale behind, and justification for those policies.
- Effective coordination with the public and with other agencies (County Council, DPS, WSSC, M-NCPPC, MDE, & MDP) on County water and sewer planning policies and goals.

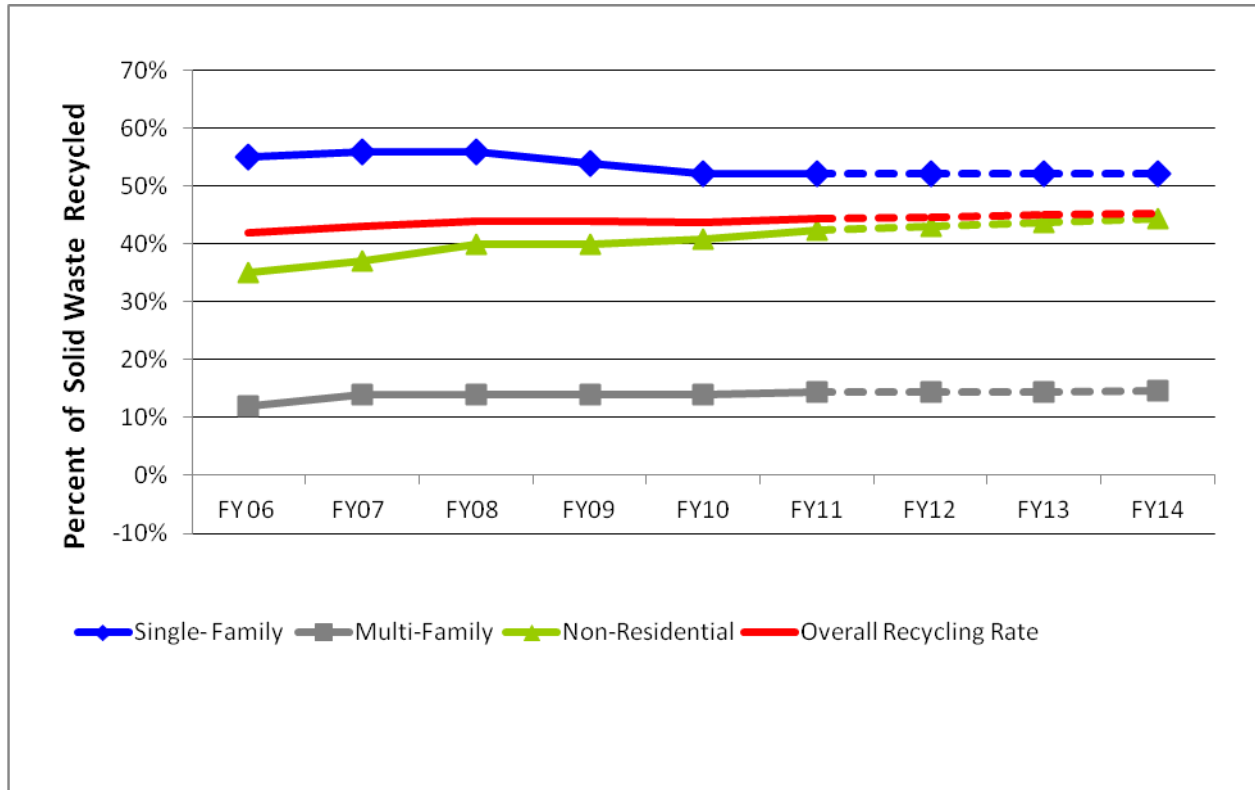
RESTRICTING FACTORS

- As developable land decreases and growth pressures increase, development interests want to look beyond existing policies—or at least stretch existing policies—to promote more public water and sewer service outside existing service envelopes.
- Council members will continue to have interests and issues to consider that lie outside the purview of the Water and Sewer Plan and its policies.
- Land use planners at County and State levels tend to discount exceptional service policies the Council has adopted in the Water and Sewer Plan; these policies are often used to address rare or unique service situations not readily accounted for in master and sector plans that address broader development issues.

WHAT WE PROPOSE TO DO TO IMPROVE PERFORMANCE

- Continue to coordinate closely with Council staff on water and sewer service policy issues generating controversy or raising the interest of Council members.
- Develop Water and Sewer Plan policy amendments that conform to policy directions endorsed by the Council.

HEADLINE MEASURE #7: PERCENT OF TOTAL MUNICIPAL SOLID WASTE RECYCLED



The County has a goal of recycling 50% of all waste generated by 2010. Recycling is mandated by Executive Regulation 15-04AM, which requires recycling throughout the single-family, multi-family and commercial sectors. The comprehensive strategies and initiatives to reach the County's 50 percent recycling goal include a combination of outreach, education, technical assistance, training, and enforcement. FY12 numbers are estimates based on actual numbers from July–December FY11 and projections based on that for Jan–July of 2012.

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14
Single- Family	56%	56%	54%	52.1%	52.2%	52.2%	52.2%	52.2%
Multi-Family	14%	14%	14%	14.0%	14.4%	14.5%	14.5%	14.6%
Non-Residential	37%	40%	40%	40.8%	42.4%	43.0%	43.8%	44.3%
Overall Recycling Rate	43%	44%	44%	43.6%	44.4%	44.6%	45.0%	45.3%

CONTRIBUTING FACTORS

- Residential Recycling:
 - a) Outreach and education motivating people to recycle more materials
 - b) Well-functioning collection services provided by the County
- Commercial/Multi-Family Recycling:
 - a) Outreach and education motivating businesses and tenants to recycle more materials
 - b) Site visits and specific recommendations provided to improve recycling programs to reinforce educational measures
 - c) Technical assistance and training to reinforce recycling behavior
 - d) Enforcement efforts to ensure compliance with recycling and solid waste requirements

RESTRICTING FACTORS

- Residential Recycling:
 - a) Language barriers and cultural differences
 - b) Competing household priorities
 - c) Mixed paper recycling drop because of overall economic conditions, and reductions in printed media. Paper weight has decreased in the recycling stream as businesses continue to go electronic and consume less paper. Postal mail volume decreases affect the recycling stream negatively. Newspaper weight is related to economic strength. As newspaper weight decreases, recycling decreases.

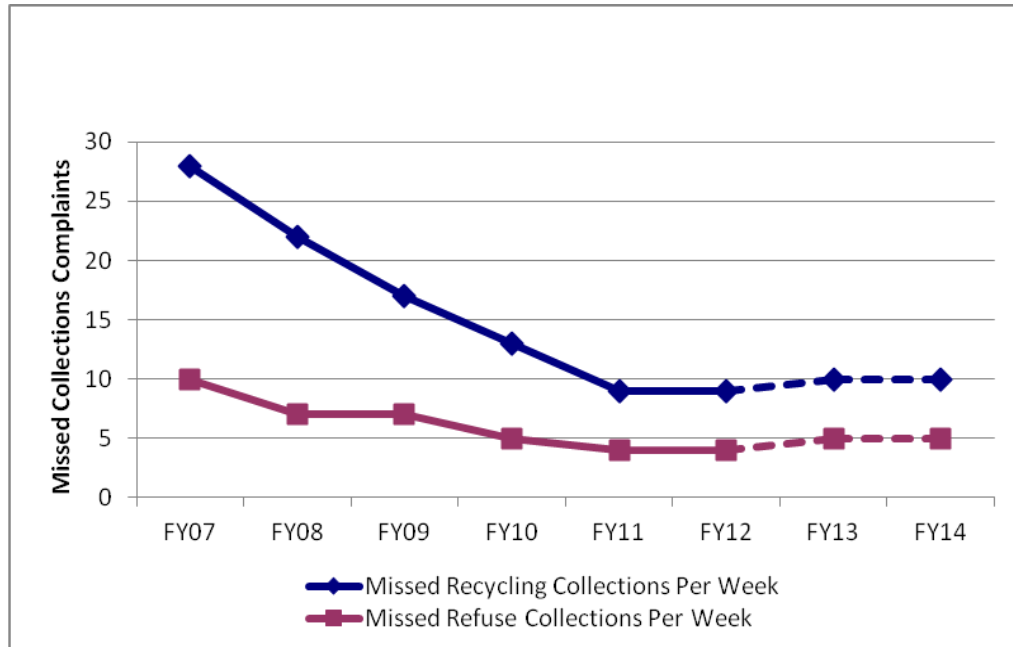
- d) Current economic conditions affect consumption (and trash generation) of County residents.
- Commercial Recycling:
 - a) Commodity prices for recycled materials in international markets (especially China/India) affect recycling rates because they are market incentives. Recycling behavior changes with commodity price fluctuation.
 - b) Multiple parties in chain of custody for recyclable materials.
 - c) Recycling collections services hired by the business itself
 - d) Language barriers and cultural differences
 - e) Staff or services turnover
- Multi-Family Recycling:
 - a) Language barriers and cultural differences
 - b) Multiple parties in chain of custody for recyclable materials
 - c) Resident/manager/concierge staff or services turnover
 - d) Recycling collections services hired by the manager of the property/building itself

WHAT WE PROPOSE TO DO TO IMPROVE PERFORMANCE

- The goal of recycling 50% of MSW generated by 2010 has to be reevaluated. We will continue to focus on commercial sector recycling as having the biggest impact on increasing our overall recycling rate.
- Continue and expand efforts to increase recycling in the multi-family and commercial sectors. Based on waste generation data and current recycling achievement, the commercial sector provides the greatest opportunity to increase the amount of materials recycled.
- Continue providing education, outreach, training, technical assistance, and guidance across all sectors to single-family and multi-family residents, multi-family property owners, managers, condominium and common ownership community boards, and businesses including business owners, managers, commercial property owners, property management companies, employees, commercial service providers, and refuse and recycling collection companies to further increase participation in and achievement in recycling, waste reduction and buying recycled programs.
- Continue to provide a comprehensive level of outreach, education, training, technical assistance and site-specific recommendations to businesses and multi-family properties to implement, improve or expand on-site recycling programs through the use of on-site visits by staff.

- Continue dedicated enforcement of the County's recycling regulation, Executive Regulation (ER) 15-04AM as it pertains to businesses and multi-family properties by thoroughly investigating cases of non-compliance, and use of enforcement measures as needed and appropriate to bring about compliance.

HEADLINE MEASURE #8: MISSED COLLECTION COMPLAINTS PER WEEK



Missed Collections	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14
Missed Recycling Collections Per Week	28	22	17	13	9	9	10	10
Households Served (Recycling)	208,444	209,306	209,935	210,595	211,363	211,545	212,302	213,060
Missed Refuse Collections Per Week	10	7	7	5	4	4	5	5
Households Served (Refuse)	87,650	89,906	90,289	90,961	90,986	91,081	91,407	91,733

Missed Collection: a collection that does not occur on the resident's scheduled day. There has been a steady decline in the number of missed collections for both recycling and refuse collection.

DEP collects trash from approximately 40 percent of the residents in the county and recyclables from every single-family household (excluding municipalities) through contracts with private sector collectors. For collection purposes, the county is divided into 13 areas. Each area is further subdivided into routes receiving collection on a specific day of the week. The routes are designed so that each home receives all collection services on the same day each week. DEP's goal is to make sure materials are collected promptly and in all cases on the same day. If a resident's trash or recyclables are not collected on the same day it is recorded as a "missed collection". The "missed collections" are tracked to quantify both contractor performance and DEP's effectiveness as a contract manager.

CONTRIBUTING FACTORS

- Solid Waste related calls are in the second highest call volume for the MC311 Call Center.
- Missed recycling collections are 69% less than we predicted in 2011 (29 vs. 9)
- Missed refuse collections are 55% less than we predicted in 2011 (9 vs. 5)

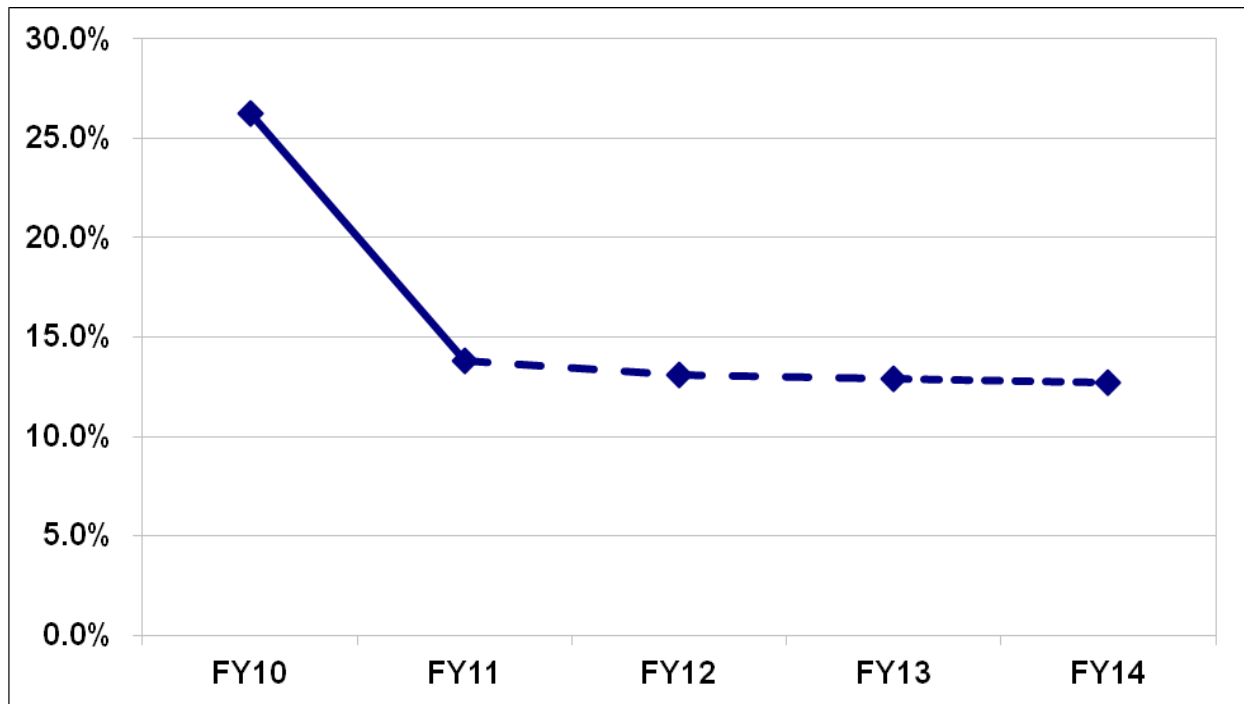
- Inspectors monitored collections closely. Additional Inspectors were deployed during the first two weeks of each new contract period. DEP staff members were extremely vigilant about calls for missed collections.
- DEP rehired contractors who were very experienced and familiar with existing routes. As a result, start-ups resulted in significantly fewer missed collections than expected.
- Crew/drivers were familiar with routes and were supplied online maps to help with routing.
- Quick response time (call center & field staff)
- Targeted education and outreach to residents affected by collection day-changes.

RESTRICTING FACTORS

- Periodic new contract start-ups
- Contractor's inability to hire and retain staff

WHAT WE PROPOSE TO DO TO IMPROVE PERFORMANCE

- Improve dispatch and response time to residents' same day collection complaints to avoid those being converted into misses.
- Continue working with MC311 staff to provide recurrent training to Customer Service Representatives.
- Work closely with contractors to know when substitute crews are on trucks since experience has shown that this is frequently correlated with missed collection occurrences.
- As we transition contracts in each area, we will increase field staff presence to monitor performance during start-up.
- Conduct outreach to residents regarding acceptability of materials for collection and when material must be out for collection.
- Review material acceptability with contractors on a regular basis so acceptable material isn't mistakenly rejected and then called in as a missed collection by a resident.

HEADLINE MEASURE #9: PERCENT OF TOTAL MUNICIPAL SOLID WASTE SENT TO LANDFILL*Percent of MSW Landfilled*

As a result of Montgomery County's programs to recycle, grasscycle, and convert refuse to energy, an increasingly small percentage of municipal solid waste is landfilled.

	FY10	FY11	FY12	FY13	FY14
Total tons of MSW	1,080,346	1,120,143	1,131,876	1,142,996	1,154,684
Tons of MSW Exported & Disposed in Non-County Facility	149,541	145,701	147,621	147,621	146,981
Tons of MSW Converted to Ash by Non-County Facility	496	792	644	644	693
Tons of Ash (Processed MSW) Landfilled by DSWS	133,236	8,170	-	-	-
Percent MSW Landfilled to Total MSW	26.2%	13.8%	13.1%	12.9%	12.8%

CONTRIBUTING FACTORS

- The County's successful recycling program
- Volume reduction through energy conversion
- Reduced waste generation in the County

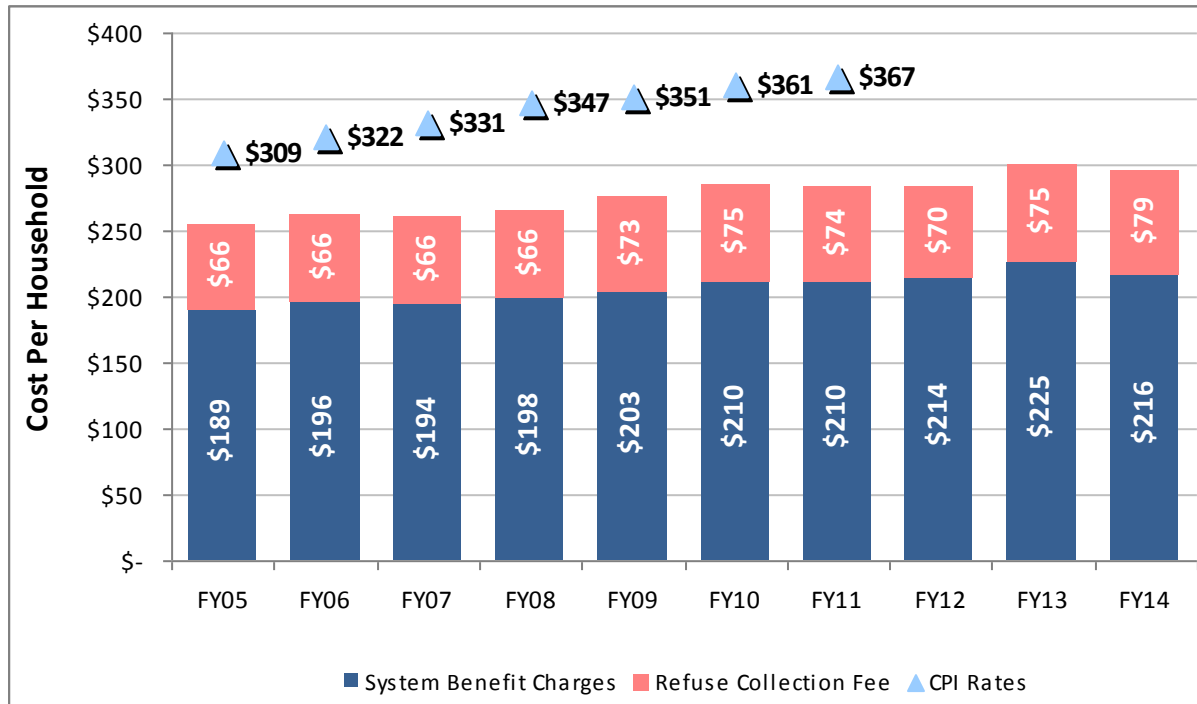
- Increased number of patrons using the HHW facility, from 10,000 in FY00 to over 80,000 in FY 08.
- Total MSW declined due to the economy, which affects landfill volume.
- Ash produced by waste incineration is now recycled rather than landfilled, either as Alternate Daily Cover or as road base. This saves the County money through: (1) a credit system for recycled ash; (2) revenues from the sale of metals recovered from the ash; and, (3) savings on fuel due to shorter travel distances.

RESTRICTING FACTORS

- Outside forces drive generation (e.g. packaging, economy, etc.)
- Other than by adjusting its Tipping Fee the County has limited influence over where private sector collectors choose to take their waste, whether that private waste experiences volume reduction at private waste-to-energy facilities, or is directly landfilled.

WHAT WE PROPOSE TO DO TO IMPROVE PERFORMANCE

- Increase recycling
- Research the market for sound uses of recycled ash.

HEADLINE MEASURE #10: SINGLE-FAMILY SOLID WASTE CHARGES

	FY08	FY09	FY10	FY11	FY12	FY13	FY14
System Benefit Charges (\$)	198	203	210	210	214	225	216
Refuse Collection Fee (\$)	66	73	75	74	70	75	79
CPI Rates	\$347	\$351	\$361	\$367			

The Solid Waste Enterprise Fund was established by law to account for all revenues and expenditures of the integrated solid waste management system. The System Benefit Charges and Collection Fees are collected on the property tax bills. Rate-setting methodology is used to ensure that fees and charges are calculated to reflect as fairly as practicable the costs to the County of providing solid waste services. There has not been a corresponding increase in the single family waste charge as the Consumer Price Index has continued to rise.

CONTRIBUTING FACTORS

- Landfill, gas-to-energy project
- Instituted Low NOx project
- Expanded Transfer Station tipping floor, increased safety, and reduced customer wait time
- Instituted full time Household Hazardous Waste Drop off
- Innovative approaches to reducing cost and increasing revenues

RESTRICTING FACTORS

- Increases in fuel and labor costs
- Changes in commodity markets
- Decreases in investment income (earnings)

WHAT WE PROPOSE TO DO TO IMPROVE PERFORMANCE

- Maintain the Solid Waste Enterprise Fund's current and six-year projected fiscal health goals while practicing prudent financial management.
- Enhance reporting using *Crystal Reports* software to ensure all solid waste tonnages received by DSWS are accounted for, and that all applicable tipping fees are collected.
- Continue benchmarking with other similar jurisdictions with regard to fees charged and services rendered to ensure DSWS is delivering the best service in a cost effective manner.
- Continue rate model enhancements, and rate stabilization over the six year planning period to ensure our customers (citizens) are charged an equitable fee for service.
- Through the use of Oracle ERP/BI reporting tools maintain accountability and transparency in financial reporting during public disclosure to ratepayers.

APPENDIX A: BUDGET

The County received a new National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit on February 16, 2010. Under this MS4 Permit, the County must accelerate watershed restoration, meet specific stormwater pollutant load allocations established by the Maryland Department of the Environment (MDE), and show progress for trash reduction under the Potomac River Watershed Trash Treaty. The DEP submitted the Countywide Coordinated Implementation Strategy to MDE in February 2011 with a watershed-based approach to meet the MS4 permit requirements. This includes adding stormwater management to an additional 20% of the County's impervious surfaces that do not currently have stormwater management to the maximum extent practicable (MEP) (4300 acres by 2015). In order to fund the requirements of the new MS4 permit DEP's Stormwater Management Capital Improvement Program (CIP) is currently funded with revenue bonds. The first bond issuance of approximately \$40 million in support of the current approved \$106 million CIP is anticipated to take place in late FY12.

APPENDIX B: IMPLEMENTATION

Watershed Management Division: NPDES MS4 Permit Implementation

FY11-FY15 (5 fiscal years) Complete Watershed Restoration Implementation Plans for the 3 Watersheds with pre-assessments

FY11-FY15 Meet the goal for runoff management on additional 20% of impervious acreage not currently controlled to the maximum extent practicable

FY11 and Beyond Implement best management practices to meet existing EPA approved TMDLs according to schedule submitted to MDE in Implementation Strategy

FY12 Submitted watershed implementation plan to meet urban stormwater allocations for Bay Restoration TMDLs for nutrients and sediment

Policy and Code Enforcement Division

January 2010 Green Business Certification Program – Currently undergoing beta testing, expect to launch the program formally in January

March-June 2010 Revisions to Forest Conservation Law – Reviewed with CE in November, meeting with stakeholders beginning in December, anticipate bill to Council in Spring

FY09-FY11 Allocate spending of \$7.6 Million of Energy Efficiency and Conservation Block Grant – Received initial approval in November, beginning program planning and procurement in December, funds must be spent by November 2012.

APPENDIX C: DATA DEVELOPMENT AGENDA

<List each Headline Measure still under construction and the steps for developing needed data.>

1) Key Partnerships and Collaborations

COUNTY AGENCIES

For All County Agencies

Solid Waste Services provides technical assistance, training, education, and recommendations for improvement on waste reduction, recycling and buying recycled products initiatives and programs for all County agencies and facilities.

DEP provides technical assistance related to making County operations more sustainable.

DEP tracks actions taken by County departments and agencies supporting the goals of the 2009 Climate Protection Plan.

Department of Transportation

Highway Services:

- Coordinate the inspection/maintenance on the stormwater management facilities within the County roads right-of-way.
- Solid Waste Services coordinates rate development/budget approval to provide for Leaf Vacuuming.
- DEPC Code Enforcement staff work closely with Highway Services personnel to address illegal dumping issues on County rights-of-way.

Traffic Engineering and Operations:

- Coordinate the implementation of low-impact development stormwater controls within the County roads right-of-way.
- Implement measures to reduce ozone-pre-cursors on forecasted Air Quality Action Days including highways signs, postponing mowing on County right-of-ways, etc.

Capital Development Division:

- Coordination on the technical planning and design, construction, of new stormwater facilities on proposed roadways and other projects
- Coordination on erosion complaints and stream restoration projects when damaged storm drain infrastructure is involved
- Coordination on low impact development projects (such as bioswales and native plants to capture and treat stormwater at the source) in the public right-of-way

Department of Permitting Services

- Coordinate technical assistance and information on the permitting, planning and design of stormwater facilities.
- Provide technical information, review the data from a facility, and coordinate the process of conversion from a sediment retention facility to a stormwater facility.

- Coordination on watershed studies and other watershed restoration related issues, including implementation of the NPDES permit with respect to construction site management and practices.
- Coordination on issues related to the siting, permitting, and functioning of on-site wells and septic systems.
- Coordination on Energy Code and green building issues.
- Coordination on regulations related to forests and trees.

Libraries

- Coordinate the implementation of low-impact-development stormwater management on library properties (Aspen Hill Library, Kensington Park Library)
- Solid Waste Services provides technical assistance, training and education on recycling initiatives in libraries.

County Council

- Coordinate with the County Council and staff on water and sewer planning policy issues and related land use planning issues, including briefings for Council staff members on pending category change issues. This helps to keep DEP staff aware of Councilmember concerns with regard to both general policy issues and specific category change applications.

Montgomery County Public Schools

- Solid Waste Services provides technical assistance, training and education on waste reduction, recycling, and buying recycled products to MCPS.
- Coordinate on the installation of RainScapes Rewards projects on school property.

Department of Facilities Management

- Solid Waste Services is responsible for conducting annual evaluation and provision of recommendations to improve recycling programs at all MCPS facilities.
- Coordinate with MCPS staff, and provide technical support on waste reduction and recycling issues to schools

Division of Construction

- Coordinate the implementation of low-impact-development stormwater management on school properties (e.g., Lux Manor Elementary School bio-retention area helps filter and treat runoff from the roadway and bus turnaround area before draining into the stormdrain system)

Health and Human Services

Office of Home Energy Programs

Provide education and assistance related to energy programs for lower-income residents.

Public Information Office

Leverage paperless publicity via the County's social media portals by feeding news alerts and program news through the Public Information Office.

Use streaming video server from the Public Information Office to host video files that are embedded on DEP's Web site.

Inter-Agency Committee on Energy and Utilities Management

Chair committee consisting of all major County energy managers (WSSC, MCPS, HOC, etc.)

Department of General Services

Division of Capital Development:

- Provide technical expertise on environmental site design
- On watershed restoration projects, DGS provides contract management and construction management services for engineering and construction contracts. DEP cooperates closely with DGS on environmentally sensitive design installations on County facilities and buildings.

Facilities Management:

- Coordinate the implementation of low impact development (LID) stormwater management on retrofitting and refurbishment of existing County buildings (e.g., the County's Council Office Building is being retrofitted with a green roof.)
- Coordinate on the contract for inspection and maintenance of stormwater facilities, provide technical review and training, set schedule, and determine technical specifications of the maintenance operations.
- Solid Waste Services provides technical assistance, training, education, and recommendations for improvement on waste reduction, recycling and buying recycled products initiatives and programs for all County agencies and facilities under the services of Facilities Management.
- Provide guidance and recommendations on improving energy efficiency of County buildings, including the installation of renewable energy technologies.
- Provide assistance related to the County's procurement of clean energy.

Fleet Management Services:

- Provide technical assistance on pollution reduction from operations and reducing emissions from the County fleet.
- Assist DGS with obtaining grant funding for the installation of emissions control technology on the County's vehicle fleet.

Maryland-National Capital Parks and Planning Commission (M-NCPPC)

- Responsible for inspection and maintenance of stormwater facilities on all park lands in the County.
- Coordinate on watershed studies and restoration projects located on parkland.
- Solid Waste Services provides technical assistance, training, education, and recommendations for improvement on waste reduction, recycling and buying recycled products initiatives and programs for all M-NCPPC facilities.
- Coordination with M-NCPPC staff and the Planning Board on water and sewer planning policy issues and related land use planning issues with regard to both the category change request process and the master plan development process. The former helps to resolve differing agency positions on individual requests; the Council is more likely to concur with positions supported by

both agencies. The latter helps to establish agreement between the agencies on the relationship between water and sewer planning and land use planning for specific areas of the county.

- Coordinate on energy related issues including policies related to siting of renewable energy facilities.
- Coordinate on issues related to forests and trees, including review of variances granted under the Forest Conservation Law.

Department of Economic Development

- Support the implementation of the County's green business strategy.
- Provide technical support on environmental considerations related to a broad range of issues, from the siting of renewable energy facilities to the impact of various economic activities.

Montgomery County Forestry Board

Works with the Forestry Board to develop and maintain a GIS-based inventory of champion and significant trees throughout Montgomery County.

Department of Housing and Community Affairs

- Division of Solid Waste Services coordinates and funds the Clean and Lien program which provides for the removal of dangerous or unsightly trash from properties which owners have failed to maintain.
- Division of Solid Waste Services and Housing Code Enforcement Officers work collaboratively to identify and mitigate illegal refuse accumulation and disposal problems in residential areas.
- DEPC staff coordinates with Housing Code Enforcement to address a variety of code enforcement issues.

STATE AGENCIES

For All State Agencies

Solid Waste Services provides technical assistance, training, education, and recommendations for improvement on waste reduction, recycling and buying recycled products initiatives and programs for all State agencies and facilities located in the County.

Maryland Department of Agriculture

DEP supports MDA on the Gypsy Moth Suppression Program to limit the damage by gypsy moth caterpillars on trees across the County. MDA implements a comprehensive state-wide program. Within Montgomery County, DEP contributes funds, GIS map layers, and staff support for surveys and outreach.

MARYLAND DEPARTMENT OF ENVIRONMENT

- Solid Waste Services is a member of and an active participant on the Maryland Department of the Environment's Solid Waste Management, Recycling and Source Reduction Study Group.

- Solid Waste Services represents Montgomery County in regional discussions and coordination on solid waste and recycling issues.
- Air & Radiation Management Administration coordinates data and permit information with DEP.
- Mobile Sources Division retrofits diesel engines with clean diesel technology.
- DEP participates in Regional Greenhouse Gas Initiative Stakeholder meetings.
- DEP can tap MDE's enforcement resource in case of problems with permitted facilities.
- MDE provides significant (50-75%) grant funding for restoration projects and partners on the Anacostia watershed study.
- DEP provides stream monitoring data to MD DER for the Clean Water Act regulatory requirements of bi-annual reporting and impaired waters listing.
- Participates in regional discussion/solution of solid waste issues.
- DEP and Solid Waste Services work collaboratively to identify and mitigate incidents of illegal dumping.

Maryland Energy Administration

- Coordinate energy issues: renewable energy, energy management issues, and energy efficiency.
- Coordination on marketing and deploying home energy audits and best practices to the community through the Home Performance with Energy Star program.

Maryland Department of Natural Resources

- Partners with DEP on the Anacostia watershed study
- DEP uses monitoring protocols developed by MD DNR to ensure integration with larger state databases.
- DEP and MD DNR collaborate through the Maryland Water Monitoring Council on science-based monitoring issues such as stream restoration effectiveness monitoring

MD State Highway Administration

Coordinate on ICC and ICC "Stewardship" and mitigation projects (many of these projects are from DEP restoration project inventory)

Northeast Maryland Waste Disposal Authority

Participates in regional discussion/solution of solid waste and recycling issues; they own and operate the Resource Recovery Facility in Montgomery County, Maryland.

DEP worked with the Northeast Maryland Waste Disposal Authority (NMWDA) to implement landfill gas-to-energy facilities at the Oaks Landfill and Gude Landfill. The facilities have been generating 3.2 MW of electricity since the summer of 2009.

DEP is working with the NMWDA and its contractors on a study of the nature and extent of contamination around the Gude Landfill and potential remediation alternatives. This work is being coordinated with the Maryland Department of the Environment, the Maryland-National Capital Park and Planning Commission and the Gude Landfill Concerned Citizens group which represents the local community.

REGIONAL ORGANIZATIONS

MWCOG

- Represent Montgomery County on the Energy Advisory Policy Committee regarding energy, and energy emergency and management issues.
- Represent Montgomery County on the Recycling Committee regarding waste reduction, recycling, and buying recycled products issues, and to discuss and address regional solid waste/recycling management issues.
- Represent Montgomery County on the Intergovernmental Green Building Group to develop policy recommendations on regional green building initiatives and coordinating green building issues among jurisdictions.
- Represent Montgomery County on the Metropolitan Washington Air Quality Committee (including the Technical Advisory Committee) supporting regional air quality planning activities, including the development of state implementation plans.
- Represent Montgomery County on the Climate, Energy, and Environmental Policy Committee to coordinate activities related to energy efficiency and climate protection.
- Coordinate on Anacostia watershed activities through the Anacostia Watershed Restoration Committee

ANACOSTIA WATERSHED RESTORATION AGREEMENT

In 1987, the Anacostia Watershed Restoration Agreement was signed by the local, state, and federal agencies with land and management responsibilities in the Anacostia Watershed including Montgomery County. The Agreement provides a framework for the evaluation of pollution control efforts with regard to observed water quality and aquatic life benefits.

BIKES FOR THE WORLD

Bikes for the World (BFW) pick-up bicycles donated at the Transfer Station, refurbishes them, and distributes them throughout the world. The organization is located in Virginia and holds several events around the Metro area to get bicycles and funding.

PATUXENT RIVER COMMISSION

Since its creation in 1980 by State legislation, Montgomery County has been a member of the Patuxent River Commission, an interjurisdictional group to address environmental protection issues throughout the Patuxent River watershed. The 930 square mile watershed is entirely within the State of Maryland and has been the focus of innovative policy, planning, and implementation efforts since 1980, beginning with a 'charrette' which resulted in the establishment of the State's first nutrient reduction goals for wastewater treatment plants.

PATUXENT RESERVOIRS WATERSHED PROTECTION AGREEMENT

In 1996, recognizing the unique challenges of source water protection, Montgomery County joined Howard and Prince George's Counties, the Howard and Montgomery Soil Conservation Districts, the Maryland-National Parks and Planning Commission, and the Washington Suburban Sanitary Commission in signing the Patuxent Reservoirs Watershed Protection Agreement. The signatories committed to

identify relative roles and responsibilities to protect the watershed, tributaries, river, and reservoirs in the Upper Patuxent. The signatories established six priority resources for protection: the reservoirs, the tributary streams, the aquatic life, the terrestrial habitat, the watershed's rural character and landscape, and the people in the watershed.

A Wider Circle

A Wider Circle picks up donated furniture and delivers it to low income residents in need. A Wider Circle works closely with Montgomery County social service agencies and is partially supported by grants through the Department of Housing and Community Affairs and the Department of Environmental Protection (through its waste reduction program).

MARYLAND LOCAL GOVERNMENT AGREEMENT FOR CHESAPEAKE BAY RESTORATION

In 1992, the Chesapeake Bay Program completed its re-evaluation on status and trends in water quality of the Bay and its tidal tributaries and reaffirmed the 1987 Bay Agreement goals for 40% nutrient reductions. This led to the allocation of nutrient reduction targets among the signatory states and the Maryland Local Government Agreement. Originally signed by the Governor, Counties, and the City of Baltimore in 1993, this Agreement was updated in the year 2000 to outline commitments by the State and local governments to address the goals of the Chesapeake Bay Agreement at the local level. The Tributary Strategies Teams were established as a result of this Agreement. The County's NPDES Permit encourages the County to participate in the implementation of the Tributary Strategies.

Potomac River Watershed Trash Treaty

By signing the Potomac River Watershed Trash Treaty, Montgomery County along with other local jurisdictions in the region, committed to a Trash Free Potomac by 2013 by:

- Supporting and implementing regional strategies aimed at reducing trash and increasing recycling;
- Increasing education and awareness of the trash issue throughout the Potomac Watershed; and
- Re-convening annually to discuss and evaluate measures and actions addressing trash reduction.

Washington Suburban Sanitation Commission

DEP's stream restoration engineers have been, and will continue to work closely with Washington Suburban Sanitation Commission (WSSC) to improve sewer infrastructure along stream valleys, which reduces flash pollution incidents and bacteria leaking into the stream systems from sewer pipes.

Coordination with WSSC staff on issues related to the provision of public water and sewer service and with DPS (Well and Septic) staff on issues related to the siting, permitting, and functioning of on-site wells and septic systems. Understanding and, if necessary, resolving technical and/or policy issues related to the provision of service for individual category change requests provides DEP staff with better grounding for their action recommendations.

Solid Waste Services provides technical assistance, training, education, and recommendations for improvement on waste reduction, recycling and buying recycled products initiatives and programs at WSSC facilities in the county.

Clarksburg Monitoring Partnership

DEP is working with the Clarksburg Monitoring Partnership (a consortium of local and federal agencies, and universities). The Partnership offers a collaborative approach to monitoring the long term aquatic ecosystem changes to stream systems.

Alice Ferguson Foundation

Trash reduction requirements will be included in the County's 3rd NPDES MS4 permit. DEP is an active player in the Regional Trash Summit and in the development and implementation of a Trash Reduction Strategy being spearheaded by the Alice Ferguson Foundation.

Stormwater Partners

DEP coordinated and facilitated discussions on the draft version of the County's 3rd NPDES permit with regional environmental groups (Stormwater Partners, Chesapeake Bay Foundation, and National Audubon Society), and MDE, to ensure that the permit conditions were acceptable to the stakeholders, the County and the State.

Prince George's County Department of Environmental Resources

Partners on Anacostia watershed study

District of Columbia Department of the Environment

Partners on Anacostia watershed study

Clean Air Partners

Provide support, participate in technical partnerships, receive regional air quality public education particularly on national air quality ambient standards, and outreach to reduce air pollution through voluntary actions.

Project Reboot

Used computers are dropped off at the Transfer Station. Volunteers with Project Reboot refurbish and repair donated computers that are then given to social services agencies, local schools, nonprofit organizations, and families.

NON-PROFIT ENERGY ALLIANCE

Foster cooperative purchasing of preferably clean energy at a cost savings to non-profit participants.

BETHESDA GREEN, SILVER SPRING GREEN, POOLESVILLE GREEN AND GREEN WHEATON

Encourage the development of an environmentally conscience green community through support to community-based environmental organizations.

DSWS partners with communities to provide information on waste reduction, recycling and buying recycled products programs and coordinates and conducts on-site special recycling collection events.

GREATER WASHINGTON INTERFAITH POWER AND LIGHT

Partnerships and information resources to encourage community to adopt energy efficiency measures

SIERRA CLUB: MONTGOMERY COUNTY, MD CHAPTER

Environmental and Energy advocacy

MONTGOMERY HOUSING PARTNERSHIP

Community organizers and affordable housing providers interested in energy and other green programs/services

International Council for Local Environmental Initiatives

Overarching organization to help local jurisdictions to help develop climate plans, and facilitate the exchanges of best practices.

FEDERAL AGENCIES

For All Federal Agencies

Solid Waste Services provides technical assistance, training, education, and recommendations for improvement on waste reduction, recycling and buying recycled products initiatives and programs for all Federal agencies and facilities located in the County.

U.S. Army Corps of Engineers

Partners on watershed studies and restoration projects in the Anacostia, Great Seneca Creek & Muddy Branch watersheds. U.S. ACE provides significant (50–65 percent) Federal cost-share funding for partnership projects

U.S. Geological Survey

Identified by the USGS as the sole mid-Atlantic local government agency to maintain and contribute gage data to the National Water Information System (NWIS). Collaborate on real-time gage data that meet local information needs.

U.S. Environmental Protection Agency

- Collaborate on monitoring of pollutant removal efficiency of stormwater best management practices, changes in the biological community due to landuse change, etc.
- Share data and resources, use ENERGY STAR publicity materials, promote ENERGY STAR-qualified products, participate in ENERGY STAR working groups (e.g., municipal group) to define new program options for local governments, residents and businesses.

National Park Service

Collaborate for the support and information needs for Rock Creek stream gage

National Oceanic and Atmospheric Administration

Enhance the involvement of federal agency tools and resources in local climate programs, e.g., DEP is exploring cooperation on a greenhouse gas emissions tracking tool called *Carbon Tracker*.

COMMERCIAL

Montgomery County Chamber of Commerce

DEP partners with the Chamber of Commerce to publicize and run the Green Business Certification Program which awards recognition for County businesses which take voluntary steps to reduce the environmental impact of their operations.

DSWS partners with all of the various chapters of the Chambers of Commerce to provide and distribute information pertaining to the county's waste reduction, recycling and buying recycled initiatives and programs.

For All Businesses and Organizations in the County

Solid Waste Services provides technical assistance, training, education, and recommendations for improvement on waste reduction, recycling and buying recycled products initiatives and programs for all businesses and organizations located in the County.

Commercial Firms

- DEP promotes a variety of County businesses focused on more sustainable operations through the Green Business Certification Program.

The following commercial refuse and recyclable material collection companies collectively provide residential collection services to 210,000 single family and townhouse dwellings in the county.

- Unity Disposal and Recycling, LLC
- Allied Waste Services, Inc.
- Ecology Services, Inc.
- Potomac Disposal, Inc.

2) Workforce Diversity and MFD Procurement

- Workforce Diversity
- The Department of Environmental Protection actively seeks to recruit diverse workforce by adhering to Office of Human Resources standard practice is to advertise based on position specifications Primary sources used to gain a broad range of applicants in the past have been LatPro, El Tiempo Latino, Asian Fortune, and National Forum for Black Public Administrators in addition to the Washington Post, Baltimore Sun, DCJobs.com, ICMA, and other web-based advertising sites. DEP is attempts to meet bilingual staff needs for program areas in which those needs have been identified. Our gains in this area, however, have been limited because a large portion of our vacancies in FY11 were filled with County employees through the Reduction In Force (RIF) process.

- MFD Procurement

DEP Procurement transactions subject to MFD Requirements for the FY11 reporting period amount to \$60,920,055, of this amount \$18,856,557 or 31 percent of procurement dollars was awarded to MFD firms, which is well above the recommended 20 percent County guideline (FYI, not a requirement but rather a guideline).

3) Innovations

DIVISION OF SOLID WASTE SERVICES

- Procured the last of the 13 collection contracts resulting in a 4% decrease in costs. The conversion of our fleet of 125 refuse and recycling collection trucks from diesel to cleaner compressed natural gas power is 90% (112) complete. The new trucks meet the higher EPA energy and emission requirements.
- Worked with the MC311 development team to launch an on-line portal for County residents to schedule collection services for bulk trash and scrap metal pick-up.
- Installed approximately 1,250 solar panels on the Transfer Station roof. We estimate that these solar panels will generate approximately 280 kw and will save the County \$200,000 over the 20-year life of the panels. Additionally, an environmental benefit of this project is reduced CO2 emissions for the energy used at the facility. The facility began operations on March 24, 2011.
- During FY12, we continued the pilot program to maximize electricity revenue generation at the Resource Recovery Facility by maximizing throughput during on-peak electricity pricing periods. During implementation we developed a database that displays the differences between on-peak and off peak electricity prices.
- In September 2010, we switched from an ash disposal operation to an ash recycling operation. Ash recycling initially included additional ferrous metals recovery. Non-ferrous metals recovery was added in the fall of 2011. Also added to recycling is the option for construction and demolition (C & D) debris at Honeygo Run. Cardboard, dimensioned lumber and metal are removed via magnet and/or hand picking from C & D loads. In FY12 DEP's ash recycling contractor, Republic Services, who screens ash for use as alternate daily cover and road base, and also recovers additional metals at the same time, added three personnel to pick non-ferrous metals from ash on the conveyors lines to complement the pre-existing ferrous recovery program. While the non-ferrous metal product is of low quality due to ash contamination and melted aluminum slag, it will yield some additional revenue. Due to the newness of the non-ferrous recovery program, quantities and revenue estimates are not yet available, but it will be of relatively small magnitude, say \$10,000 - \$20,000 per year. The ash recycling program initiated last year is estimated to achieve savings of \$400,000 - \$500,000 per year. These savings will continue into the future.

- We upgraded the Paradigm Software (the real-time truck scale house application) in order to improve the physical security of the system and facilitate faster weigh station transactions at the Transfer Station.
- The Solid Waste Information Technology staff produced route maps via the web that enabled new contractors to learn new areas. Through the use of real-time look-ups the numbers of misses were minimized. This process increased customer satisfaction of our 200,000+ residents, corrected billing errors, and improved efficiency of our collection process.
- Solid Waste Services offers a state-of-the-art suite of electronic communications employing various Web technologies. The web site provides citizens and businesses with numerous options for managing reusable and recyclable items and materials without necessarily using County facilities or having the County incur any costs. This makes it easier and faster for citizens to connect with the Department, access services, get answers, and clear up inquiries. Some examples are:
 - The Collection Day Lookup tool was improved and re-launched to give residents 24-hour-a-day access information about their recycling/trash collection day and the pickup services available to them.
 - Blog: “Talkin’ Trash” (with Real Simple Syndication feed)
 - Twitter announcements and updates (@GoGreenMC and @TalkinTrashMC)
 - Solid Waste Facebook Page
 - DVD content available as YouTube videos
 - Email subscription service for news alerts
 - Electronic newsletters
 - Text Alerts for mobile devices
 - Widgets available for HOA and Web sites and blogs (to feed recycling/trash news directly to their Web sites)

WATERSHED MANAGEMENT DIVISION

- Created three Google Map applications delineating watershed boundaries, providing biological health, and providing information on SPA monitoring on DEP website
- Currently developing a Watershed Implementation Strategy that will outline the workplan of the division, and will explain how the workplan will meet the

requirements of the new MS-4 (stormwater permit), the Potomac Trash Free treaty and total maximum daily loads (TMDLs).

- Currently updating the water quality protection charge (WQPC) to make the charge more equitable. Through improvements in GIS analysis of surfaces, the charge will be based on actual imperviousness.
- DEP will increase monitoring of Best Management Practices (BMPs) in the Special Protection Areas (SPAs) and other areas to better track their effectiveness. DEP will also make the monitoring results more available to the public through the redesign of its public Web site.
- Increase enforcement of BMP maintenance
- The SPA monitoring program is an innovative program that links BMP monitoring and biological monitoring to measure the effective of BMPs in protecting water quality.
- The SPA Report was reformatted to make the recommendations and results of the monitoring easily understandable to the non-technical reader.
- The RainScapes Rewards program, which cost-shares the installation of techniques to capture and treat stormwater on private property in dense, urban settings, is a national model.
- The Biological Monitoring program maintains a blog (with Real Simple Syndication feed, photos and video) to outreach to interested parties and provide the latest field monitoring updates. The program also leverages the County's social media portals by coordination with the Public Information Office.
- To update the County's watershed boundaries map from 1996, DEP is using LiDAR data. The watershed base map is critical for accuracy and reliability of all Watershed division functions including biological monitoring, stormwater management to meet the MS4 permit requirements, and cost-estimation for structural projects. The use of LiDAR data expedites the delineation of boundaries and reduces the use of ground-truthing resources.
- DEP's IT staff members are improving the accuracy of the GIS-based County impervious surface data to support stormwater management programs and enhance the WQPC program. GIS was used to delineate recreational areas, building footprints, and multi-family properties in the County.

WATER AND SEWER POLICY

- Reduced paper use through reductions in printing and mailing through the use of e-mail and the DEP "Waterworks" Webpage to maintain contact with the public and the development industry.

- Initiated an extensive, ongoing review of water and sewer service accounts with WSSC to locate properties where existing public service is not reflected in the service area categories in the Water and Sewer Plan to improve the accuracy of the water/sewer service area categories presented in the Plan.
- Conducted a review of D.C. WASA's proposed biosolids management program to ensure cost effective design and practical application of new treatment technology.
- Conducted a review of the WSSC inspection, repair, and monitoring program for large diameter Pre-stressed Concrete Cylinder Pipe (PCCP), which will provide long-term protection/notification of deteriorating water mains.
- Negotiated a regional cost share agreement for two significant capital projects at D.C. WASA that total nearly \$3 Billion as part of the Inter-municipal Agreement (IMA).
- Integrated DEP's approval of record plats into the DPS automated permit tracking system to streamline the plat approval process and allow access to developers to the status of DEP's plat review.

DIVISION OF ENVIRONMENTAL POLICY AND COMPLIANCE

- Facilitated the Installation of solar panels on the roof of the Montgomery County Solid Waste Transfer Station using a Maryland Energy Administration grant and an innovative installation and power purchase agreement with a Maryland-based energy firm.
- Supported the purchase of renewable energy by the Non-Profit Energy Alliance. The Alliance is an informal collaborative of non-profit organizations that joined forces to purchase energy at lower cost than utility standard offer service. DEP provided education and technical support on clean energy markets and purchasing options that resulted in their decision to purchase a clean energy product.
- Continued development of the Montgomery County Green Business Certification Program which supports and recognizes County businesses/organizations that take environmentally-responsible actions. The Program, managed in partnership with the Montgomery County Chamber of Commerce and Montgomery College, has certified 35 businesses. Staff is currently working on a certification program for landscaping companies operating in the County.
- Implemented a variety of countywide energy efficiency programs funded by 2009 American Recovery and Reinvestment Act. Under the County's \$7.6 million Energy Efficiency & Conservation Block Grant, funds are being used for (1) improvements to County buildings, (2) grants/rebates to commercial entities and residents

undertaking energy efficiency improvements, (3) workforce development, (4) energy improvements to housing for low income residents, and (5) energy education and outreach.

- Developed proposed approach to revising the Forest Conservation Law and regulating the loss of tree canopy. The amendments are designed to protect and provide for mitigation when forest and tree canopy is lost as a result of development. Proposed approach was developed in consultation with broad range of stakeholders.
- Led the effort to install diesel emissions control equipment on 78 heavy-duty diesel County vehicles through grant awards from the Mid-Atlantic Regional Air Management Administration and the Maryland Department of the Environment totaling \$564,689.
- DEP used GIS to map illegal dumping complaints and create a “water quality hotspots map” to efficiently locate addresses within watersheds, and identify sites where illegal dumping problems occur most often.

4) Effective Use of the Workforce/Resources

- DEP has not identified the percent increase/decrease in overtime hours used per position.

DIVISION OF SOLID WASTE SERVICES

- DSWS implemented a demonstration project to recycle pre-consumer food waste in the EOB cafeteria. According to the County's most recent waste composition study, food waste makes up approximately 18 percent of the County's non-residential (commercial) waste stream. A number of restaurants, grocery stores, and other businesses generating food waste have asked staff for assistance in establishing on-site food waste recycling programs. Staff is working extensively with the management and staff of the cafeteria to implement a model food waste recycling program and establish best management practices, in order to showcase and highlight the program to other businesses to emulate. Factors being studied include: materials acceptable for food waste recycling; containers and storage space; collection and transport of food waste; staff and program user education process and training materials; tonnage reports and data tracking; etc.
- The Oaks Landfill has a 2.4 MW landfill gas-to-energy facility that generates revenue for the County. DEP, the Northeast Maryland Waste Disposal Authority and their contractors have been trying to improve the availability of the facility to well above the contract requirement of 80 percent availability. Each one percent improvement in availability will create approximately \$10,000 in additional annual electricity revenues. This may vary depending upon utility prices. DEP will be rebidding the landfill maintenance contracts in FY12. It is our intention to develop a more cost effective pricing structure for treated leachate hauling which can cost as much as \$1 million per year. Current pricing is on a per gallon hauled basis. It may be more cost effective to actually buy or lease the tank truck and contract for an operator. Other options are being explored as well. Actual savings will be known in the spring of 2012 after the new contract is in place and will be realized in the latter part of FY12 and in FY13.
- In FY12, the Recycling Center will conduct a pilot program to determine the marketability of PET thermoform plastics such as clamshells and berry containers. There is a potential market that has requested a sample of material. If the pilot is successful and a stable market can be secured for PET thermoform plastics, this will reduce un-recyclable residue from the Recycling Center by approximately 100 tons a year, saving on disposal costs and also generate a modest amount of revenue, about \$30,000 a year.
- In FY12, continued to provide revised educational information to residents about the most recent expansion of the county's recycling program to include additional items to

the list of materials acceptable for recycling, including: empty, non-hazardous aerosol cans, plastic durable/reusable containers and lids, coated paper items such as milk/juice cartons, produce boxes, frozen food boxes, and juice and drink boxes.

- Through extensive waste reduction initiatives and education on techniques and efforts to reduce waste, as well as a comprehensive effort to educate residents about grasscycling and backyard or on-site composting of yard trim materials, DSWS received the maximum allowable five percent source reduction credit awarded by the Maryland Department of the Environment for the County's MRA and Waste Diversion Rate.
- Increased the number of residents that staff and the recycling program volunteers directly interacted with during educational community events and activities. In FY11, DSWS staff and volunteers participated in 320 events reaching 37,603 people, during FY10 DSWS staff and volunteers participated in 373 events reaching 34,521 people.
- Increased the number of site visits made to businesses by the Recycling Education Program Specialists. In FY11, five staff members conducted a combined total of 11,074 site visits, the most number of site visits conducted in one fiscal year.
- Maryland State Law requires the Division of Solid Waste Services to collect, maintain, and report data regarding the recycling rates of businesses and properties in Montgomery County, Maryland. IT staff created a database application to meet this requirement. The application is accessed from a secure environment using web browsers, making it convenient for the many external report filers and thereby reducing paper use. The data is housed in an Oracle server which allows for flexible reporting options.

WATERSHED MANAGEMENT DIVISION

- The DEP's four-million-dollar Stormwater Facility Inspection and Maintenance Program is managed using contractors to conduct the work. The use of contractors eliminates the need for a huge staff and equipment detail. By optimizing the use of contractors DEP keeps staffing levels to a minimum and optimizes performance.

WATER AND SEWER POLICY

- Reduction in printing and mailing costs by using e-mail and the DEP "Waterworks" webpage to maintain contact with the public and the development industry.

ENVIRONMENTAL POLICY AND CODE ENFORCEMENT DIVISION

- One of the key programs developed under the County's Energy Efficiency and Conservation Block Grant from the US Department of Energy was a website designed to be a "one stop shop" where County residents can find out information about ways to green their lifestyles. The site includes information about County, other government, utility, and private sector programs and resources; a calendar of events related to sustainability; and social marketing features including blogs and links to a supporting Facebook site. The site is intended to allow information about sustainability to reach beyond the audiences reached by DEP's limited staff.
- In order to encourage community-based environmental programs by residents and businesses, DEPC has supported the development of organizations like Bethesda Green, Silver Spring Green, Poolesville Green, and Green Wheaton.
- Support to the Non-Profit Energy Alliance has enabled a broad range of non-profit organizations to purchase clean energy at a reduced price, encouraging them to become advocates for clean energy and partnering on sustainability initiatives.

5) Succession Planning

- DEP has not identified the percent of key positions for which the department has developed/implemented long-term succession planning.

DEP is committed to the recruitment and retention of employee talent using a variety of strategies. DEP strategically assesses its workforce for potential retirements and other attrition with a view to maintaining a pool of ready staff to be able to transition into potential vacancies. We are focused on the retirements with the greatest impact. We strive to align employees' individual career growth plans with overall departmental needs and growth, and assess positions with respect to current and future departmental responsibilities and missions. Overall retention and knowledge management strategies include:

- Challenging and innovative workload assignments
- The full suite of county sponsored benefits
- Cross-training and mentoring within Divisions
- Job rotations
- Individualized employee development plans that reflect on strengths and department's needs
- Workforce development through workshops and trainings
- Innovative recruitment at local universities for unique-skills positions

DIVISION OF SOLID WASTE SERVICES

- We promote effective change management regarding the ERP Oracle Business Intelligence and Human Capital Management implementation, in order to facilitate smooth migration of, operational, business and technical processes.
- We are being trained on the functionality of the Hyperion budget system, the planning and workforce modules, and the Excel reporting tools. We cross-train the Business Section for adequate back-up.
- We provide: cross-training of employees; participation of employees in management and leadership development training; skill development of employees through participation in courses and training sessions; mentoring of employees.
- We assist and support staff in achieving their work and career goals by identifying training needs and leadership development opportunities.

- We stress accountability and continuous improvement, make timely and effective decisions and produce results through strategic planning and implementation and evaluation of program and policies.
- We require that supervisors pre-approve comp-time requests.

WATERSHED MANAGEMENT DIVISION

- To better align the Department's staffing and expertise complement with current & future missions including the resource-intensive implementation of the County's third NPDES MS4 Permit, the Watershed Management Division created a Watershed Planning and Monitoring Section. This section is staffed to provide comprehensive overview of the permit implementation.
- DEP promotes career growth opportunities to retain the valuable historical knowledge base of watershed management projects. In FY11 DEP has internally promoted watershed planners and engineers to senior and management positions. For example, upon the FY11 retirement of the manager of Planning and Capital Projects Section, the vacant manager position was filled internally by a Senior Planner who often served as acting manager prior to becoming appointed to the position.
- In the watershed restoration team, we have identified two critical retirements in the upcoming years: the Watershed Restoration and Capital Projects Manager and the Water Quality Monitoring Supervisor. DEP promotes cross-training and uses individual employee development plans to encourage staff to develop the competencies needed to assume leadership positions. This will help us develop a pool of potential employees to replace these retiring leaders. For example, junior staff scientists are not only encouraged to analyze the data required to write the SPA report but are involved in the writing and in the presentation of the data to key decision-makers. Also, watershed restoration engineers are required to go beyond project competences to attend intra-agency and planning meetings with federal, state and local agencies. Expansion of staff duties in this manner helps to develop their enterprise-level knowledge and understanding.
- The Watershed Management Division has a highly successful volunteer/intern program which we often relay upon to fill vacancies. We attract outstanding talent from the top environmental undergraduate and graduate programs in the region, then mentor and train them in the unique-skill sets required for biological monitoring program and data management (including use of Geographic Information Systems).
- To develop a career ladder within the watershed management division, staff members are encouraged to present their work at local conferences, attend workshops, courses, and

training, and attend free Webinars and trainings hosted by federal and regional agencies in this region.

WATER AND SEWER POLICY

- We maintain one Sr. Planner; the workload requires this, but it also allows for a transfer of experience and skills from the latter to the former I have no idea who Alan is transferring his knowledge base.
- Development of the water/sewer service area category database will make it easier for new planners to access and research documentation on prior Water and Sewer Plan amendments actions.
- This Chief of the Water Wastewater Management section will be retiring in the upcoming years: Dave Lake. The current Chief of the Watershed Division who previously worked at WSSC has been identified as a potential successor of the base knowledge of this section. With a view to eventual transition we are focusing on structured relationship building through attendance at meetings and events, where the Chief of the Watershed Division develops a presence and familiarity with all WSSC and WASA issues and regional players. Steve is attending formal leadership seminars. We have also engaged Dave Lake in this process to assist with the eventual transition.

ENVIRONMENTAL POLICY AND CODE ENFORCEMENT DIVISION

- Code Enforcement staff is trained and gains experience across a broad range of environmental issues, which allows more flexibility in responding to issues raised by residents.
- We have two energy planners who are cross-trained for more secure knowledge management.

6) Internal Controls and Risk Management

- DEP has not identified any audit reports which have been issued in the last 12 months.

DEPARTMENT-WIDE OFFICE

DEP has developed a full Continuity of Operations Plan (COOP). The plan includes detailed procedures on emergency procedures including shelter in-place as well as data storage security and redundancy. The COOP plan also has procedures for contacting staff during non-business hours using a phone tree mechanism, and maintenance of operations in the event of unforeseen emergencies including security threats, acts of God, inclement weather, etc.

DEP maintains upto-date staff emergency contact information and has put procedures in place to keep this information updated.

Because DEP is run out of two separate locations, both locations have put in place their own procedures for continuity of operations.

Recognizing the vulnerability of having a single data server housed within DEP, DEP has pursued, and is receiving back up storage space in a separate location (Council Office Building). This storage mirrors its in-house server.

DEP's server room is linked to this building's auxiliary power to ensure that DEP's servers (and the air conditioning in the server room) will be operational even when there is a power failure in the building.

Power surge and battery back-up units are provided for all computers.

The Department implements good business practices for procurements and payments, following County policies, to reduce risk. For example, reducing risk to the County is an inherent component in the preparation of both procurement solicitations and contracts. Beyond the routine reviews, the Department staff proactively considers and researches areas of concern with both the Office of Risk Management and County Attorney's Office.

The Department is diligent about ensuring that hallways and offices are clear of obstacles and safe for passage for staff. Emergency evacuation routes, location of first aid kits, fire extinguishers, and office wardens are posted throughout the office. Additionally, secure doors with alarms are installed and security procedures for laptops, vehicle and office keys are clearly posted on the Department's Intranet.

In the Department's lab, fireproof cabinets are provided for all flammable liquids and Materials Safety Data Sheet logs are used by staff members to track the stock of these liquids. Eye wash and a fume hood are also provided.

Each year, at the request of Risk Management, the administrative manger conducts a safety audit our office including the Lab. This report is reviewed by Risk Management.

DIVISION OF SOLID WASTE SERVICES

The Maryland Department of the Environment (MDE) is in the process of issuing a Consent Order to Montgomery County mandating the remediation of groundwater contamination at and in the vicinity of the Gude Landfill. Expenses are expected to increase substantially at Gude Landfill over the next several years as the remediation is planned and implemented. Nevertheless, there are opportunities for long-term productivity improvements which should reduce future maintenance costs once the initial capital investment is made in remediation of the site. More information will be available in FY13 after the proposed remediation studies are completed, a remediation method is selected, and design work begins.

Solid Waste provides County residents with a seven-day per week drop-off facility for household hazardous waste at the Shady Grove Processing Facility and Transfer Station. Over 80,000 residents made use of this program in FY11. This program improves safety, reducing the risk of fire and toxic exposure for waste collectors and residents.

We perform a monthly tonnage/revenue reconciliation to verify that the tons received at the Transfer Station equal the amount of tip fee revenue for the same month. Performing this reconciliation enables Solid Waste to maintain accurate tonnage accounting and yields very little variances of no materiality.

The IT Staff completes an annual exhaustive inventory of computers, servers and other equipment. The purpose of the inventory is to evaluate the condition, verify the location, and make sure the Divisions' equipment is still in use.

The Divisions' safety and compliance coordinator, located at the Transfer Station, provides in-house training and information for safety improvements and best practices. We believe this approach reduces the risk of injury, and minimizes risks to health, safety and welfare for staff and the public. Covanta of Montgomery, Inc., the principle on-site coordinator, received the OSHA Voluntary Protection Program (VPP) safety designation from the State for its outstanding safety record.

The Shady Grove Processing Facility and Transfer Station has a full-time individual dedicated to environmental compliance with applicable laws and regulations and overseeing and improving site safety. Numerous staff are trained in pollution prevention, investigating waste loads containing radioactive or potentially hazardous materials, personal protective gear, traffic management, dealing with difficult customers and spill containment and clean-up.

Staff ensures that all cash funds collected at the Transfer Station are quickly and properly recorded and deposited into the PNC bank. Checks are scanned daily directly in the bank to maximize cash flow. The process is reviewed annually to ensure that internal controls are in effect and used during the entire cash receipt process.

We perform monthly audits of our MasterCard P-Card transactions. Once the transactions are checked and approved in the JPMorgan Chase on-line system, our accountant performs a secondary review. This is to ensure that the proper approval was obtained and proper codes were entered into the system. We periodically generate reports for management review.

We perform a bi-annual audit of all of the division's fixed assets. This audit is critical in determining if the fixed asset has been fully depreciated, disposed, or salvaged. We verify the location of each piece of equipment, vehicles, computers, etc. The data is updated in the ERP Fixed Asset module and the Division's Fixed Asset database. We conduct site visits to ensure that the information entered in the system is complete and accurate.

We perform a monthly review of all cell phone invoices to ensure that all charges, minutes, and calls fall within prescribed limits set by the Division. This ensures cost effective use of Solid Waste equipment.

We have developed a comprehensive safety training program for both our internal field staff, as well as the collection contractors we hire.

Field staff has been provided with cell phones and/or two-way radios, and clothing having identifying logos, appropriate tools and safety equipment

WATERSHED MANAGEMENT DIVISION

A major work responsibility of much of the DEP program staff is field work. The Department provides equipment and training to help staff minimize risks while on the job.

Department posts guideline procedures to mitigate the danger of deer/tick, and mosquito exposure to field staff and provides insect repellent.

Field crews are told to check for ticks, watch for bees, snakes, snapping turtles, and how to handle certain fish with poisonous spines.

Crews are taught how to evaluate a stream station for safety and sample-worthiness, avoid water over their waders, and other best practices.

First aid boxes, in certain field vehicles and in the office, are checked and updated periodically.

Staff members are encouraged to attend CPR training bi-annually.

Additionally, field staff members are supplied with cell phones and go out in crews rather than alone.

For stability on dangerous surfaces, steel shank, steel-toe boots are provided to staff members.

Proper-fitting rubber boots and hip-waders are provided for field work in streams.

Proper training on equipment is provided for field workers using electroshockers in the water.

Monitoring staff contact property owners and obtain approval when necessary to access monitoring stations

Disinfectant hand gel is provided to staff members in the field.

Rain gear has high reflective markings to improve visibility of employees in inclement weather and at night.

Signed property owner agreements are required for all RainScapes projects installed on private property.

ENVIRONMENTAL POLICY AND CODE ENFORCEMENT DIVISION

Since a major function of these positions involves field work, field investigations, and working with the public in a code enforcement capacity, the Department provides training and personal protective equipment to minimize risks to County employees.

The Department provides: high-visibility vests, radios, flashlights, first aid kits in cars, personal protective equipment including hearing protection, cell phones, cameras, hard hats, safety glasses, gloves, tyvex suits to code enforcement staff.

7) Environmental Stewardship

DIVISION OF SOLID WASTE SERVICES

- Out-of-County Haul program, reduced costs by approximately \$400,000 to \$500,000 per year starting in September 2010 through amending the contract with Brunswick Waste Management, LLC to allow the beneficial use of ash for Alternate Daily Cover at modern permitted landfills owned by Republic Services and as road base material within the confines of these modern landfills. Also, began receiving 17.5 percent of scrap metal revenues from secondary processing of ash for metals recovery when it is screened into grades for use as ADC and road base.
- Generating electricity from methane emissions at landfills. Since July 1, 2009, together, the Oaks and Gude Landfills generate 3.2 Mega Watts (MW) of power, enough to supply over 2,000 homes in Montgomery County with clean energy as a result of the new technology installed there.
- Significantly expanded the list of materials that can be recycled. The County most recently added durable/reusable plastic containers, tubs, lids, pails, buckets, flower pots aerosol cans, as well as coated paper, including milk and juice cartons, frozen food boxes, ice cream containers and lids, paper beverage and coffee cups, wax-coated fruit and produce boxes, and juice/drink boxes as items for recycling. Efforts are underway to add additional plastic items, including clamshell containers; trays; baskets; boxes; domes, etc.
- During FY12 DSWS continues to voluntarily operate “Low NOx” technology (ours being the first use of this technology at any publicly-owned waste-to-energy facility in the nation) keeping smog-producing NOx (oxides of nitrogen) emissions from the Resource Recovery Facility at half of what they would otherwise be—equivalent to keeping 70,000 cars off the road. DSWS plans to continue this voluntary advanced emission control in FY13.
- Commercial Recycling and Waste Reduction program staff assists businesses in developing Cooperative Collection Projects, bringing about more cost-effective, efficient refuse and recycling collection methods, resulting in increased recycling, reduced costs to participants, and fewer truck trips and decreased carbon emissions.
- During FY11, DEP initiated development of a formal Environmental Management System (EMS) following the guidelines issued by International Standards Organization (ISO) 14001 for operations of its Yard Trim Composting Facility in Dickerson, Maryland. This EMS goes beyond regulatory compliance, establishing a formal process of continual advances in environmental stewardship. The Compost Facility EMS

continued on track development during FY12, including substantial public participation in selecting environmental improvement priorities, and is targeted to be able to fully satisfy ISO 14001 in FY13.

- DSWS fully implemented on-line annual recycling and waste reduction report filing for all businesses and multi-family properties required to file annual reports. Notifications and communications are now sent electronically to further reduce the amount of paper and postage used.
- Staff and contractors have an excellent record of achieving compliance with refuse disposal, air emissions, and storm water management, industrial pretreatment and other permits related to its facilities.
- DEP's many waste management, hazardous waste and recycling programs encourage responsible environmental practices by the public by offering free drop-offs for almost any type of material as well as a strong residential curbside collection program. Substantial gains in recycling have reduced the environmental footprint related to waste management in Montgomery County.
- DEP's use of rail transportation for waste sent to the Resource Recovery Facility and a large portion of yard waste sent to the Dickerson Compost Facility is equivalent to taking over 120 tractor trailers off the road each day.
- Transfer Station Operations are now using check scanners in order to make bank deposits immediately to County cash accounts increasing the cash flow. We also use email and scanners to eliminate excess paper usage and postage.

WATERSHED MANAGEMENT DIVISION

- The Biological Monitoring program maintains a blog (with Real Simple Syndication feed, photos and video) to outreach to interested parties and provide the latest field monitoring updates. The program also leverages the County's social media portals by coordination with the Public Information Office. This reduces paper-based outreach and is an effective awareness-building tool.

WATER AND SEWER POLICY

- Reduced paper use through reductions in printing and mailing through the use of e-mail and the DEP "Waterworks" webpage to maintain contact with the public and the development industry.

ENVIRONMENTAL POLICY AND CODE ENFORCEMENT DIVISION

- The Residential Rebate Program developed under the County's Energy Efficiency and Conservation Block Grant, utilized an electronic application and agreement form, which eliminated the requirement to submit paper copies of applications, legal agreements, and supporting documentation, which have typically been required under programs of this type.
- Review of variance requests under the Forest Conservation Law have historically been done through the submission of written requests and hard-copy plan documents. These reviews are now primarily conducted electronically, including the review of on-line plan documents.

8) Mandatory Employee Training

- DEP has not identified the percent of employees who have fulfilled mandatory county/state/federal training requirements.

The Department of Environmental Protection actively requires new, newly promoted, and existing employees to attend mandatory training as required by the Department of Human Resources.

Through the end of the FY11 reporting period, approximately ___ % of our employees have fulfilled mandatory requirements.